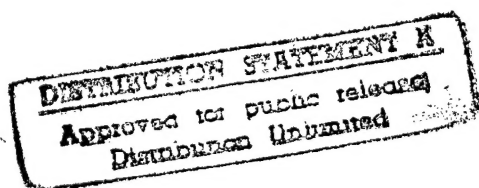
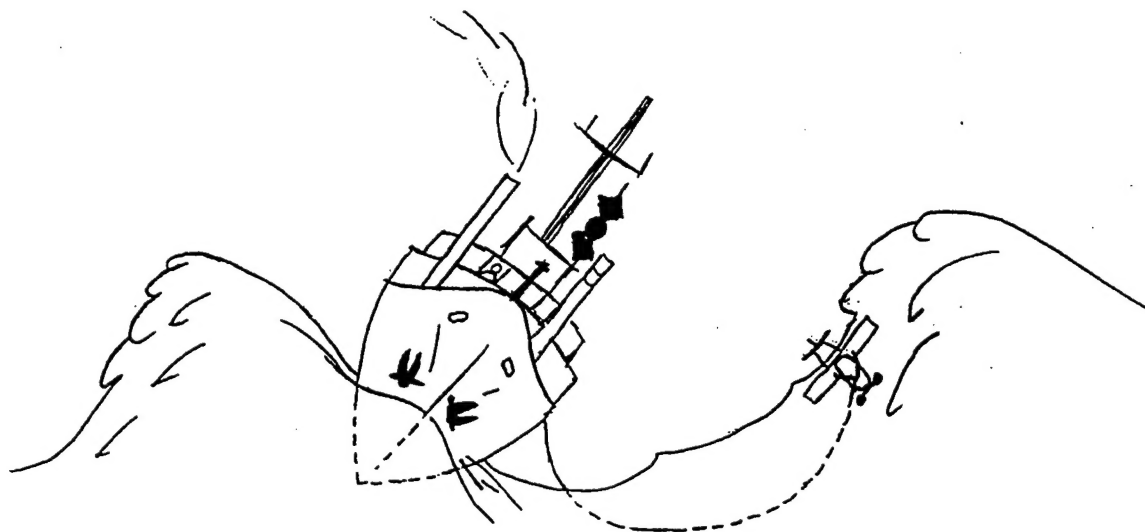


College of

Oceanic and Atmospheric Sciences



**SEASOAR and CTD Observations
During EBC Cruises
W9306A and W9308B
June to September 1993.**

by

P.M. Kosro, J. A. Barth, J. Fleischbein,
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Corvallis, Oregon 97331-5503

Data Report 160
Reference 95-2
May 1995

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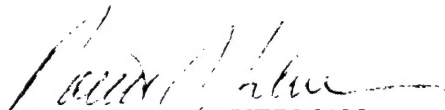
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ROBERT J. SILVERMAN

**To: Regional Director
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ACO**

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A handwritten signature in black ink that reads "Jim Carbonara". The signature is stylized with a large, sweeping "J" and a cursive "Carbonara".

**Jim Carbonara,
Director, Field Operations**

SEASOAR and CTD Observations During EBC Cruises
W9306A and W9308B June to September 1993

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SEASOAR and CTD Observations During EBC Cruises, W9306A and W9308B, June to September 1993

Introduction

This report summarizes the Seasoar and CTD observations from Wecoma cruises W9306A (5 June to 12 July, 1993) and W9308B (14 August to 22 September 1993) conducted as part of the Eastern Boundary Currents Accelerated Research Initiative, under funding by the Office of Naval Research. The cruises were designed to study the spatial and temporal variability of the mesoscale eddy/jet field in the eastern boundary current region off northern California. Participants on each cruise are listed in Table 1.

The major cruise activities are summarized in Table 2. Each cruise consisted of two legs, and each began with a large-area survey off northern California (Figures 1, 2), with sampling on long (~400 km) zonal sections separated by 0.25 degrees of latitude. Thirteen long sections were sampled during W9306A (Figure 1) and nine were sampled during W9308B (Figure 2). Measurements for the large-area survey were begun on the first leg of each cruise and completed on the second leg. Results from the large-area surveys, as well as drifter trajectories and satellite AVHRR imagery of sea-surface temperature, were then used to guide focused physical and biological sampling of mesoscale features, either with small-scale Seasoar surveys (Figures 3, 4) or with transects of stations using CTD casts, MOCNESS and live-net tows. To provide time-series estimates of local variability, a single "anchor station" was sampled repeatedly during a 48 hour period of W9308B, with net tows as well as CTD and ADCP. Other cruise activities included drifter deployments, transits to/from the experimental site, and an ADCP-only survey when heavy weather prevented instrument deployment or recovery.

The OSU Seasoar was operated on seven tows during W9306A and five tows during W9308B (Table 3); tow duration varied from 5 to 187 hours (an eighth "tow" at the end of W9306A was quickly terminated due to cable problems). On each tow, the Seasoar was outfitted with dual pumped SeaBird Electronics (SBE) temperature and conductivity sensors (one T/C pair on the starboard side of the vehicle and one on the port side) as well as with an SBE pressure sensor and 9/11-plus CTD. Inlet/outlet ports for the T/C sensor pairs were toward the front of the Seasoar nose, with outlet ports slightly aft of the inlet ports. Other sensors were mounted on the Seasoar for some tows (Table 3); these included a SeaTech fluorometer (FL), a Biospherical Instruments WSP-200L 400-700 nanometer Irradiance Profiling Sensor (PAR), an Optical Plankton Counter (OPC) and a Towed Optical Fluorescence Unit (TOFU). This report presents results from the CTD measurements made with Seasoar.

Table 1. Cruise participants on W9306A and W9308B, with their institution and primary responsibility.

W9306, Leg 1 (Newport OR to San Francisco CA), June 5-20, 1993

Jane Huyer	OSU	Chief Scientist; SeaSoar
Robert L. Smith	OSU	Co-Chief Scientist; SeaSoar
Brett Barksdale	OSU	SeaSoar
Francois Carlotti	CNRS	OPC/MOCNESS
Jane Fleischbein	OSU	SeaSoar
Heidi Hadlett	OSU	SeaSoar
Mike Hill	OSU	Marine Technician
Walter Nordhausen	SIO	OPC/MOCNESS
Bob O'Malley	OSU	SeaSoar
Brian Wendler	OSU	Marine Technician

W9306, Leg 2 (San Francisco CA to Newport OR), June 21 to July 12, 1993

Mike Kosro	OSU	Chief Scientist; SeaSoar/ADCP
Jack Barth	OSU	Co-Chief Scientist; SeaSoar
Mark Huntley	SIO	Co-Chief Scientist; OPC/MOCNESS
Carin Ashjian	SIO	LiveTows/Bio-ADCP
Kathryn Brooksforce	OSU	SeaSoar
Francois Carlotti	SIO	OPC/MOCNESS
Alejandro Gonzales	SIO	OPC/MOCNESS
Tim Holt	OSU	Marine Technician
Mai Lopez	SIO	OPC/MOCNESS/LiveTows
Walter Nordhausen	SIO	OPC/MOCNESS
Nathan Potter	OSU	TOFU
Dylan Righi	OSU	SeaSoar/AVHRR
John Rogers	OSU	SeaSoar/TOFU
Kipp Shearman	OSU	SeaSoar
Marc Willis	OSU	Marine Technician
Meng Zhou	SIO	OPC/MOCNESS

W9308, Leg 1 (Newport OR to San Francisco CA), August 14-27 1993

Jane Huyer	OSU	Chief Scientist; SeaSoar
Bob Smith	OSU	Co-Chief Scientist; SeaSoar
Marc Huntley	SIO	Co-Chief Scientist; OPC/MOCNESS
Eric Antonissen	OSU	SeaSoar
Francois Carlotti	SIO	OPC/MOCNESS
Richard Davis	OSU	SeaSoar/TOFU
Jane Fleischbein	OSU	SeaSoar
John Gregor	OSU	SeaSoar
Tim Holt	OSU	Marine Technician
Walter Nordhausen	SIO	OPC/MOCNESS
Richard Weiner	OSU	SeaSoar
Marc Willis	OSU	Marine Technician

W9308, Leg 2 (San Francisco CA to Newport OR), August 29 - September 22 1993

Mike Kosro	OSU	Chief Scientist; SeaSoar/ADCP
Jack Barth	OSU	Co-Chief Scientist; SeaSoar
Tim Cowles	OSU	Co-Chief Scientist; TOFU
Francois Carlotti	SIO	OPC/MOCNESS
Richard Davis	OSU	SeaSoar/TOFU
Alejandro Gonzales	SIO	OPC/MOCNESS
Mike Hill	OSU	Marine Technician
Lisa Kann	BNL	SeaSoar/LiveTows
Walter Nordhausen	SIO	OPC/MOCNESS
Bob O'Malley	OSU	SeaSoar
Steve Pierce	OSU	SeaSoar
Brian Wendler	OSU	Marine Technician
Meng Zhou	SIO	OPC/MOCNESS

The times and designations of cross-shore and alongshore Seasoar sections made during the Large-Scale (Figures 1, 2) and Small-Scale Surveys (Figures 3, 4) are given in Tables 4 and 5. Figures 5 and 6 show the ship's track, in both space and time, during each Seasoar tow of both cruises.

During both cruises, upwelling-favorable winds prevailed, with direction usually between 330° and 030°T (Figure 7). Strong winds (>20 kts) were very common (Figure 7). High winds and heavy seas interfered with over-the-side operations on a few occasions.

Conventional CTD casts were made during both cruises: 37 stations during W9306A (Table 6, Figure 8), and 63 stations on W9308B (Table 7, Figure 9). These casts were typically made to 500 dbar, using an SBE 9/11-plus CTD equipped with dual temperature and conductivity sensors and, usually, with a SeaTech fluorometer. On nearly every cast, water samples were collected at various depths for CTD calibration as well as for biological analysis. Conventional CTD casts were made on the MOCNESS/live-net tow transects, at the anchor station, and also just prior to deployment of, and just following recovery of, the Seasoar CTD. The ship's tracks during these transects are shown in Figures 10 and 11.

Table 2: Major activities during the two cruises.

W9306A

6/07-6/19	Large-Scale Survey 1, part 1, Lines 1-9
6/20-6/21	in-port, San Francisco
6/21-6/28	Large-Scale Survey 1, part 2, Lines 10-13
6/29-7/02	Small-Scale Survey 1
7/03-7/05	MOCNESS/CTD/Live Net Transect
7/05-7/06	Small-Scale 2 (aborted; Seasoar data signal loss in heavy weather)
7/06-7/09	Transit to allow Seasoar recovery and maintenance
7/09-7/10	CTD transect
7/10-7/12	ADCP sampling only (heavy weather)

W9308B

8/14-8/27	Large-Scale Survey 2, part 1, Lines 3-9
8/28-8/29	in port, San Francisco
8/30-9/01	Large-Scale Survey 2, part 2, Lines 9-11
9/01-9/05	Small-Scale Survey 3
9/05-9/06	MOCNESS/CTD/Live Net Transect
9/07-9/09	MOCNESS/CTD/Live Net Time-Series Station
9/09-9/16	Small-Scale Survey 4
9/16-9/18	MOCNESS/CTD/Live Net Transect
9/18-9/19	Deploy coherent drifter array
9/19-9/20	MOCNESS/CTD sampling near EBC slope moorings

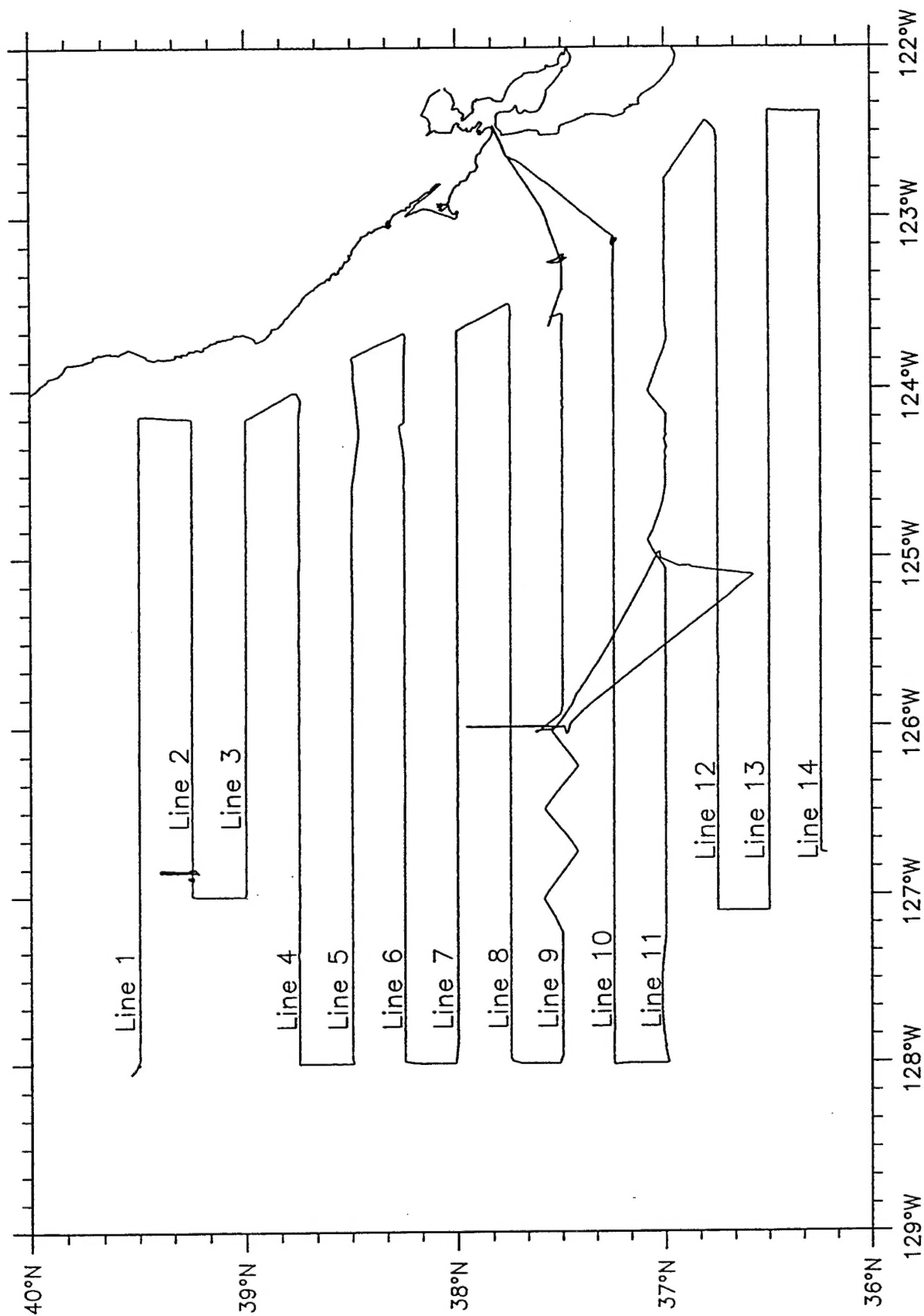


Figure 1. W9306A, Ship track for Large Scale Survey, 7-28 June 1993.

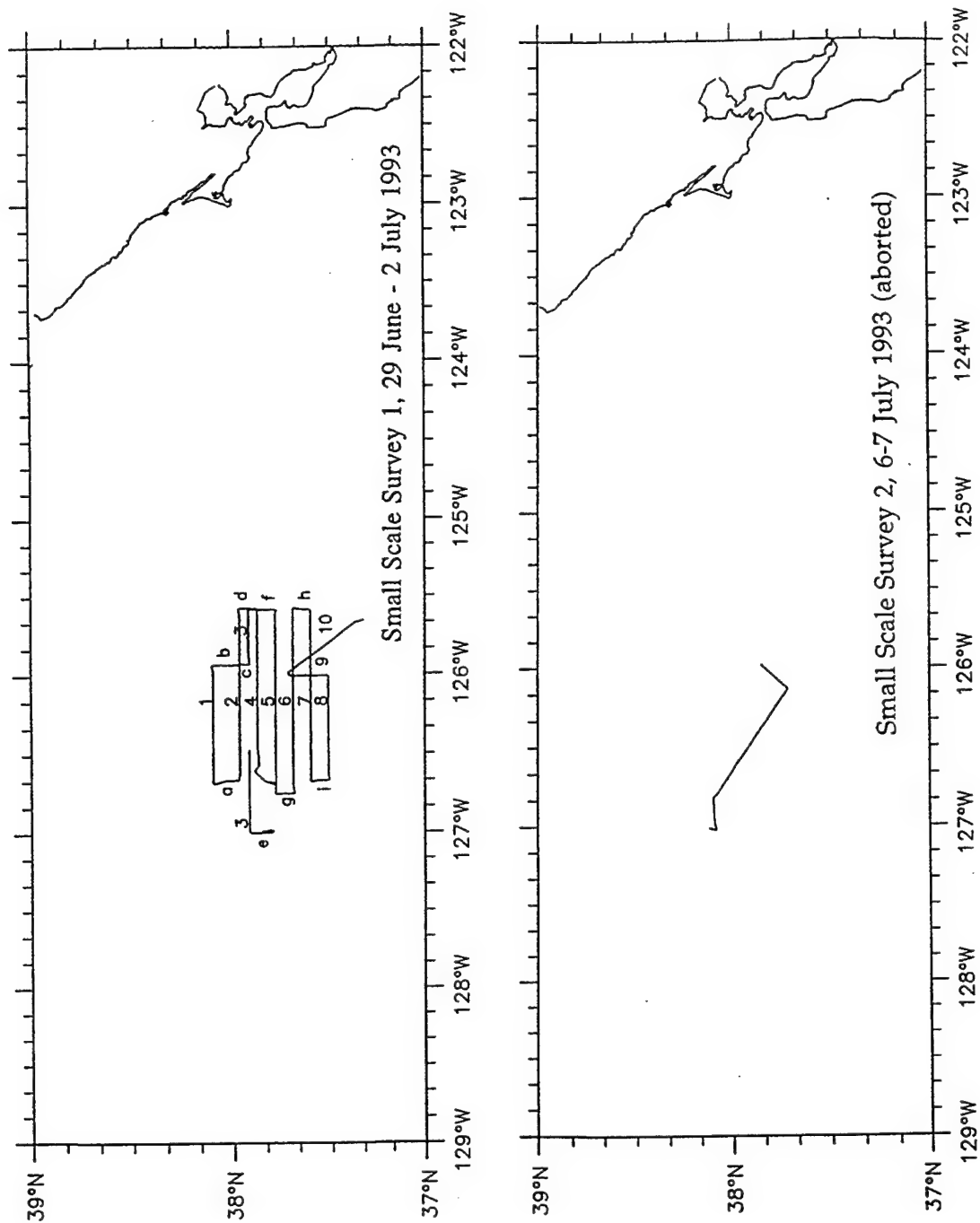


Figure 3. W9306A, Ship tracks for Small Scale Survey 1, 29 June to 2 July 1993 (top), and for the aborted Small Scale Survey 2, 6-7 July 1993 (bottom).

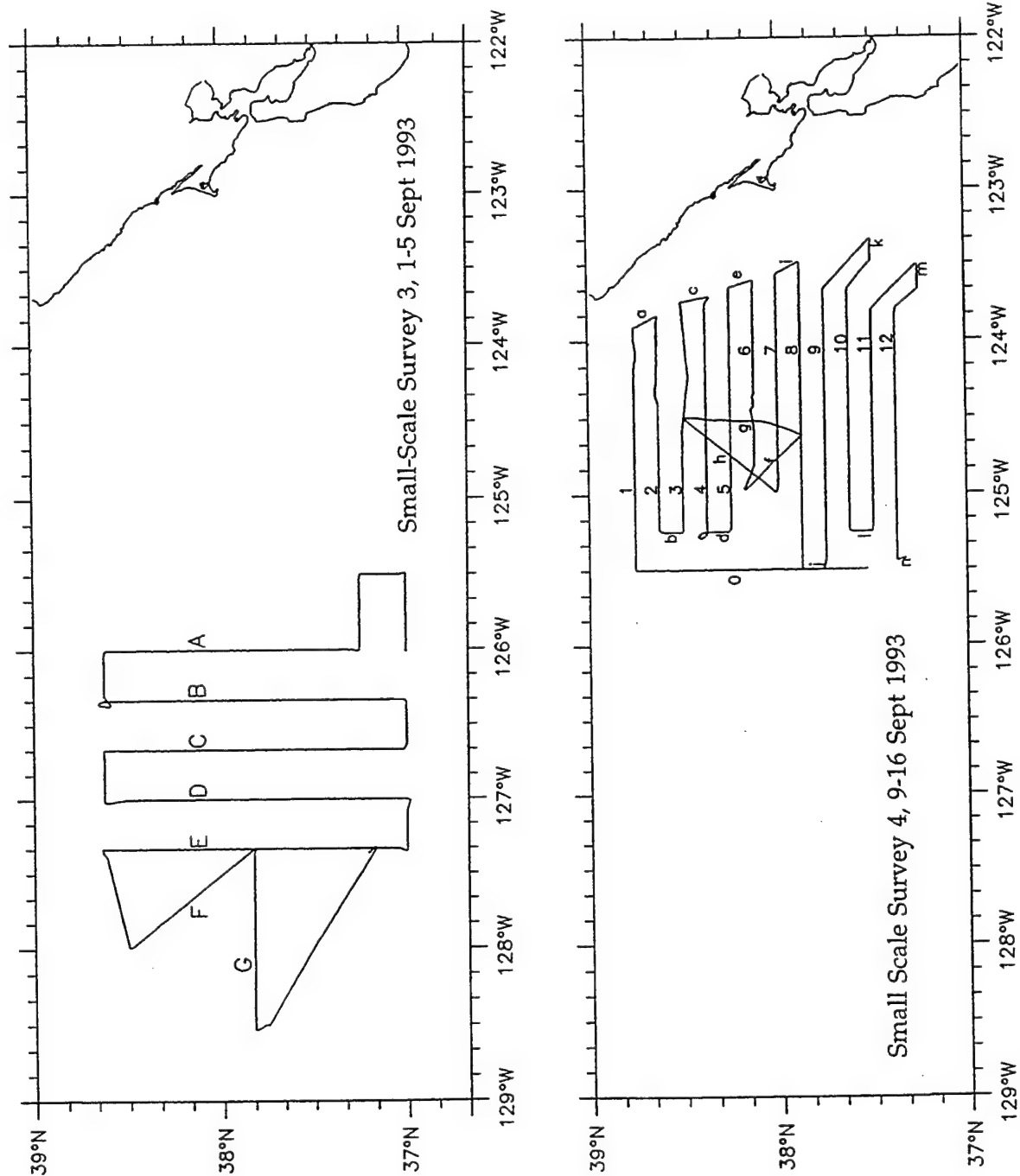


Figure 4. W9308B, Ship tracks for Small Scale Survey 3, 1-5 September 1993 (top), and for Small Scale Survey 4, 9-16 September 1993 (bottom).

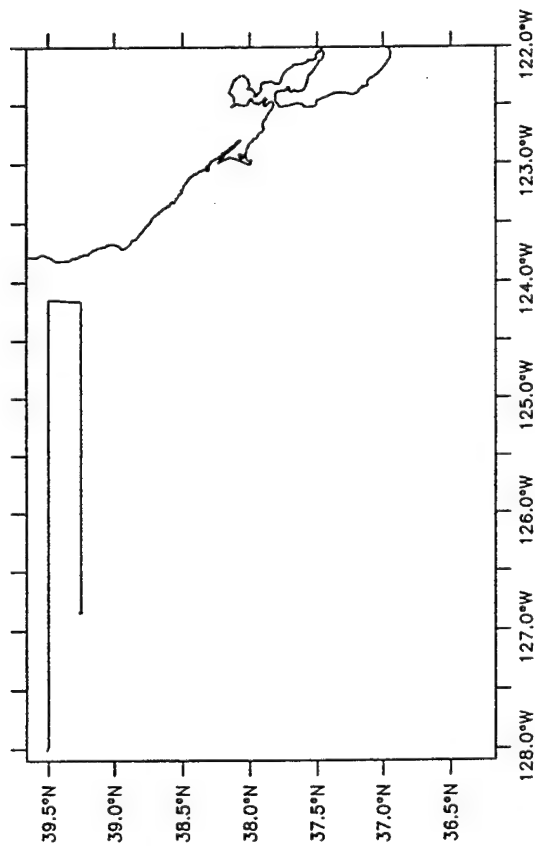
Table 3. Summary of Seasoar Tows, W9306A and W9308B. Measured parameters and their abbreviations are: pressure (P), temperature (T), conductivity (C), fluorescence (FL), photosynthetically available radiation (PAR), fluorescence from the towed optical fluorescence unit (TOFU), and optical plankton count (OPC). The primary T-C duct malfunctioned during Tow 6 of W9306A because of a plumbing fault.

Tow No.	Start Time	Stop Time	Duration (hrs)	Parameters Measured
W9306A				
1	06/07/1506	06/09/1030	43	P, T1, C1, T2, C2, FL, PAR, OPC
2	06/09/2155	06/17/1645	187	P, T1, C1, T2, C2, FL, PAR, OPC
3	06/18/2311	06/19/1810	19	P, T1, C1, T2, C2, FL, PAR, OPC
4	06/21/2158	06/28/1548	162	P, T1, C1, T2, C2, PAR, TOFU, OPC
5	06/29/1349	06/29/1908	5	P, T1, C1, T2, C2, PAR, TOFU, OPC
6	06/30/0651	07/02/2057	62	P, T2, C2, PAR, TOFU, OPC
7	07/05/2312	07/06/0804	9	P, T1, C1, T2, C2, PAR, TOFU, OPC
W9308B				
1	08/16/0311	08/17/2056	42	P, T1, C1, T2, C2, PAR, TOFU, OPC
2	08/18/0307	08/23/2047	137	P, T1, C1, T2, C2, PAR, TOFU, OPC
3	08/24/0233	08/26/2035	66	P, T1, C1, T2, C2, PAR, TOFU, OPC
4	08/30/0628	09/05/0717	145	P, T1, C1, T2, C2, PAR, TOFU, OPC
5	09/09/1531	09/16/1838	171	P, T1, C1, T2, C2, PAR, TOFU, OPC

Table 4. Times(UTC) of cross-shore and alongshore sections of the large scale (LS) and small scale (SS) surveys of W9306A.

Start Time	Stop Time	Section Name	Start Time	Stop Time	Section Name
Tow 1			Tow 4 cont.		
06/07 15:08	06/08 04:10	LS 1 offshore	06/24 02:08	06/24 03:37	LS 11 inshore b
06/08 04:10	06/08 15:55	LS 1 inshore	06/24 03:37	06/24 05:27	LS 11 inshore c
06/08 15:55	06/08 17:46	LS A	06/24 05:27	06/24 08:48	LS 11 inshore d
06/08 17:46	06/09 04:35	LS 2 inshore	06/24 08:48	06/24 10:04	LS 11 inshore e
06/09 04:35	06/09 10:31	LS 2 offshore a	06/24 10:04	06/24 12:00	LS 11 inshore f
Tow 2			06/24 12:00	06/24 18:30	LS 11 inshore g
06/09 21:56	06/09 23:24	LS 2 offshore b	06/24 18:30	06/24 21:05	LS J
06/09 23:24	06/10 01:13	LS B	06/24 21:05	06/25 19:37	LS 12 inshore
06/10 01:13	06/10 07:17	LS 3 offshore	06/25 19:37	06/26 02:28	LS 12 offshore
06/10 07:17	06/10 19:05	LS 3 inshore	06/26 02:28	06/26 04:11	LS K
06/10 19:05	06/10 21:02	LS C	06/26 04:11	06/26 11:13	LS 13 offshore
06/10 21:02	06/11 09:16	LS 4 inshore	06/26 11:13	06/27 09:50	LS 13 inshore
06/11 09:16	06/11 21:07	LS 4 offshore	06/27 09:50	06/27 11:43	LS L
06/11 21:07	06/11 22:55	LS D	06/27 11:43	06/28 11:11	LS 14 inshore
06/11 22:55	06/12 10:48	LS 5 offshore	06/28 11:11	06/28 15:48	LS 14 offshore
06/12 10:48	06/13 00:18	LS 5 inshore	Tow 5		
06/13 00:18	06/13 02:02	LS E	06/29 13:49	06/29 15:56	SS E
06/13 02:02	06/13 15:45	LS 6 inshore	06/29 15:56	06/29 19:10	SS 3 offshore
06/13 15:45	06/14 03:16	LS 6 offshore	Tow 6		
06/14 03:16	06/14 05:01	LS F	06/30 06:54	06/30 10:05	SS pre-track line
06/14 05:01	06/14 16:47	LS 7 offshore	06/30 10:05	06/30 17:06	SS 4
06/14 16:47	06/15 06:36	LS 7 inshore	06/30 17:06	06/30 17:52	SS D
06/15 06:36	06/15 08:25	LS G	06/30 17:52	06/30 20:12	SS 2 inshore
06/15 08:25	06/16 00:10	LS 8 inshore	06/30 20:12	06/30 21:22	SS B
06/16 00:10	06/16 12:27	LS 8 offshore	06/30 21:22	07/01 01:47	SS 1
06/16 12:27	06/16 14:15	LS H	07/01 01:47	07/01 02:45	SS A
06/16 14:15	06/16 19:27	LS 9 offshore a	07/01 02:45	07/01 07:46	SS 2 offshore
06/16 19:27	06/16 21:06	LS 9 offshore b	07/01 07:46	07/01 08:09	SS C
06/16 21:06	06/16 23:13	LS 9 offshore c	07/01 08:09	07/01 10:22	SS 3 inshore
06/16 23:13	06/17 01:37	LS 9 offshore d	07/01 10:22	07/01 11:31	SS F
06/17 01:37	06/17 03:27	LS 9 offshore e	07/01 11:31	07/01 18:42	SS 5
06/17 03:27	06/17 05:33	LS 9 offshore f	07/01 18:42	07/01 19:25	SS G
06/17 05:33	06/17 16:45	Tow 2 end	07/01 19:25	07/02 02:28	SS 6
Tow 3			07/02 02:28	07/02 03:10	SS H
06/18 23:11	06/19 00:23	Tow 3 deployment	07/02 03:10	07/02 10:33	SS 7
06/19 00:23	06/19 01:30	LS 9 inshore a	07/02 10:33	07/02 11:15	SS I
06/19 01:30	06/19 17:17	LS 9 inshore b	07/02 11:15	07/02 14:59	SS 8
06/19 17:17	06/19 18:11	Tow 3 recovery	07/02 14:59	07/02 16:38	SS 9
Tow 4			07/02 16:38	07/02 18:53	SS 10
06/21 22:00	06/22 16:58	LS 10 inshore	07/02 18:53	07/02 20:58	SS J
06/22 16:58	06/23 05:16	LS 10 offshore	Tow 7		
06/23 05:16	06/23 07:16	LS inshore	07/05 23:13	07/06 01:27	SS 2-1
06/23 07:16	06/23 20:05	LS 11 offshore	07/06 01:27	07/06 06:41	SS 2-2
06/23 20:05	06/24 02:08	LS 11 inshore a	07/06 06:41	07/06 08:06	SS 2-3

W9306A, Tow 1



W9306A, Tow 2

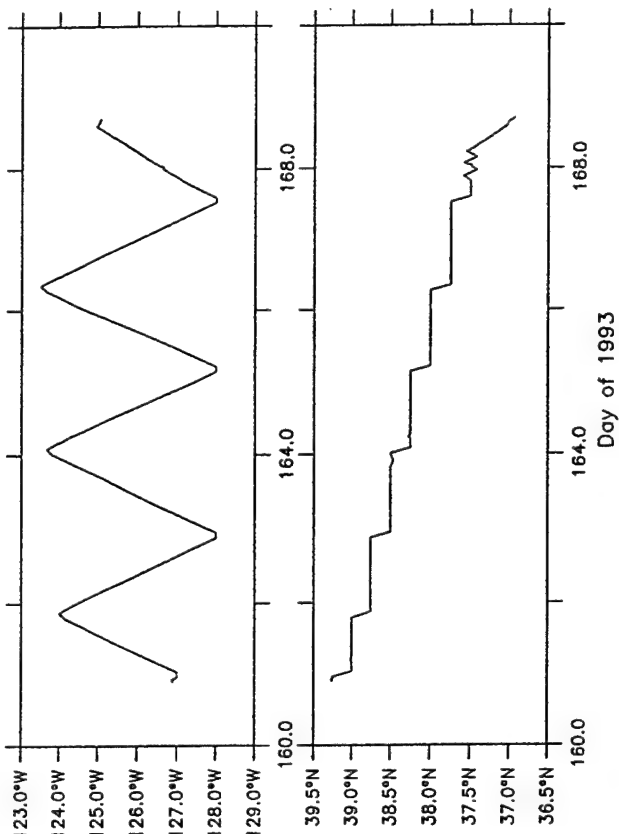
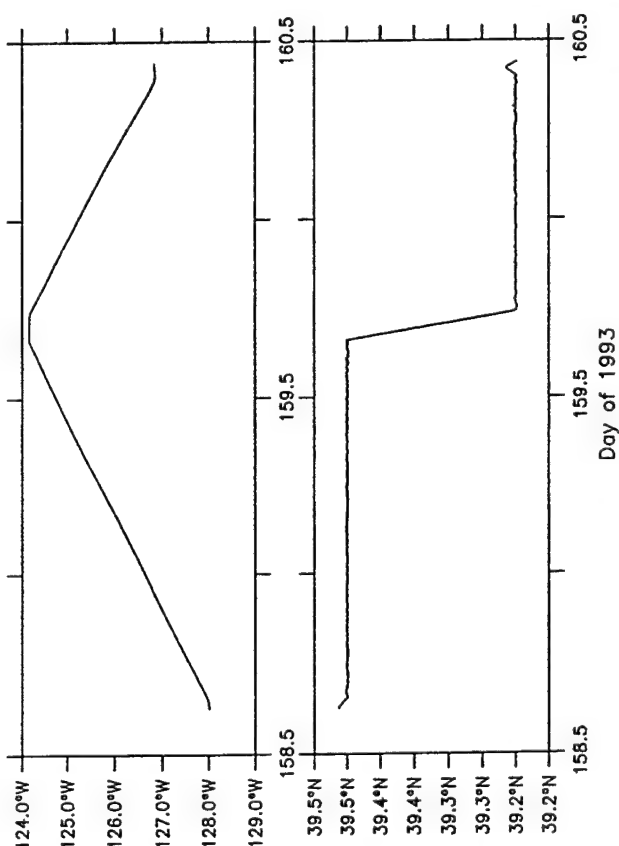
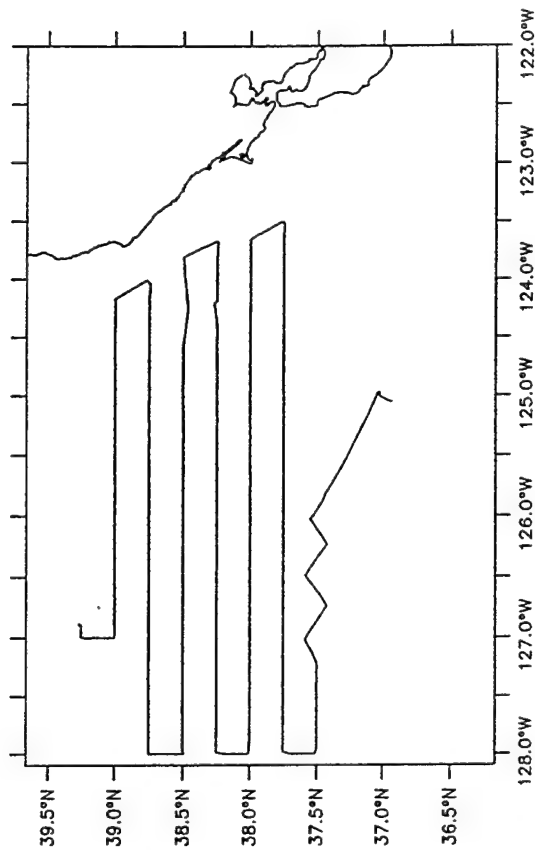
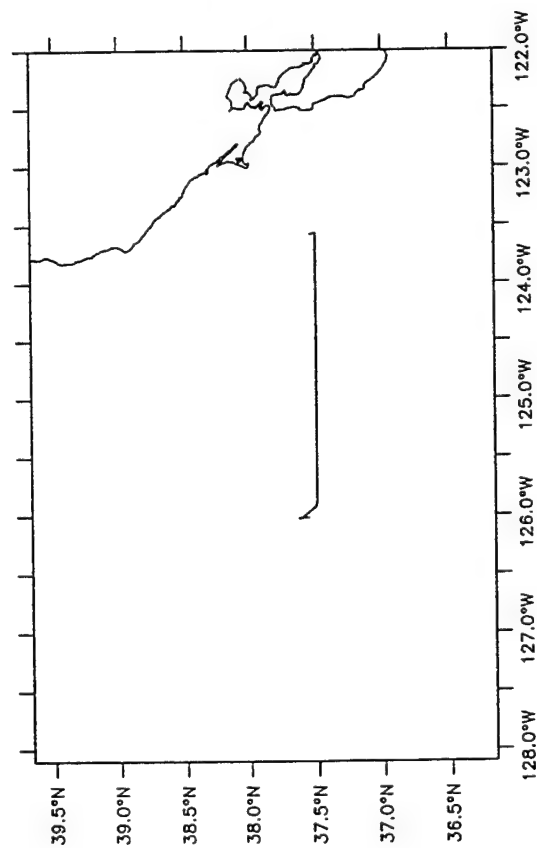


Figure 5(a) Ship's track, in space and time, of Seasoar Tows 1 and 2 of W9306A.

W9306A, Tow 3



W9306A, Tow 4

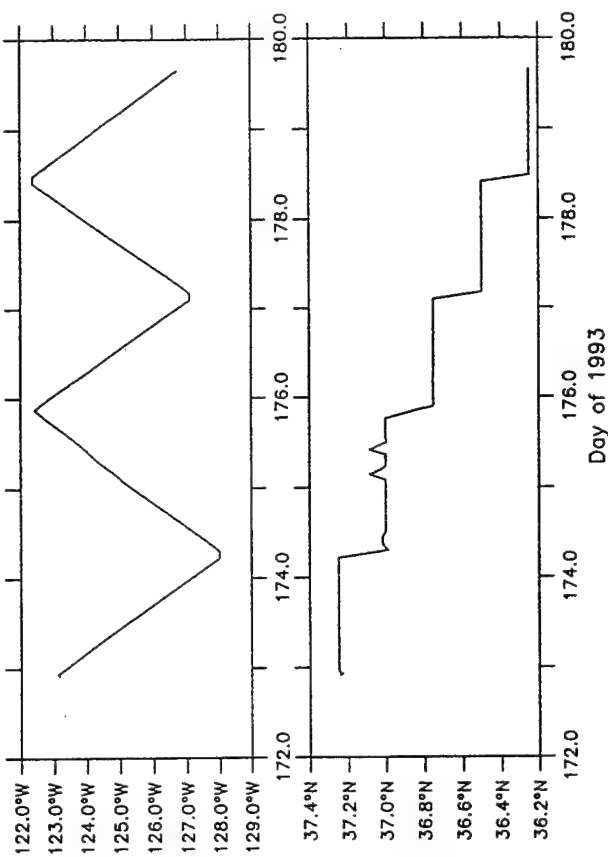
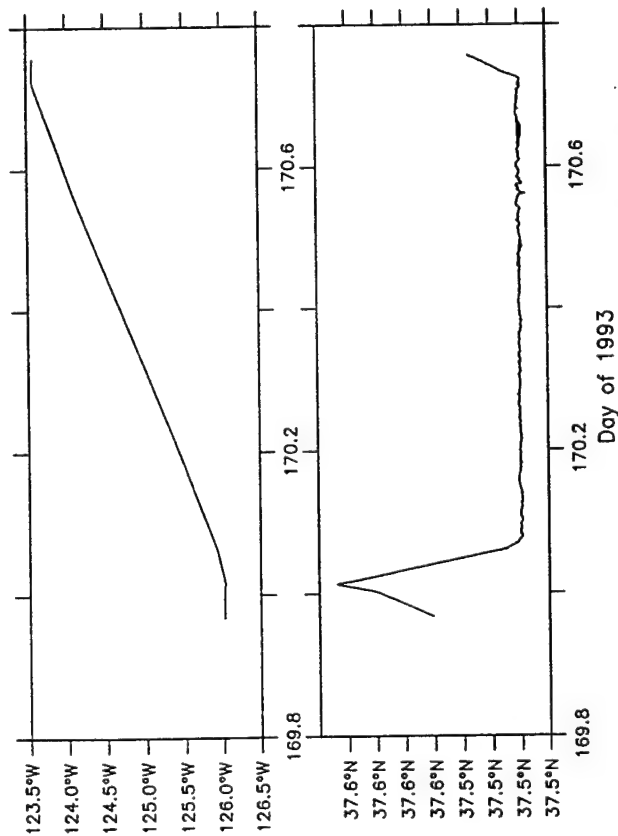
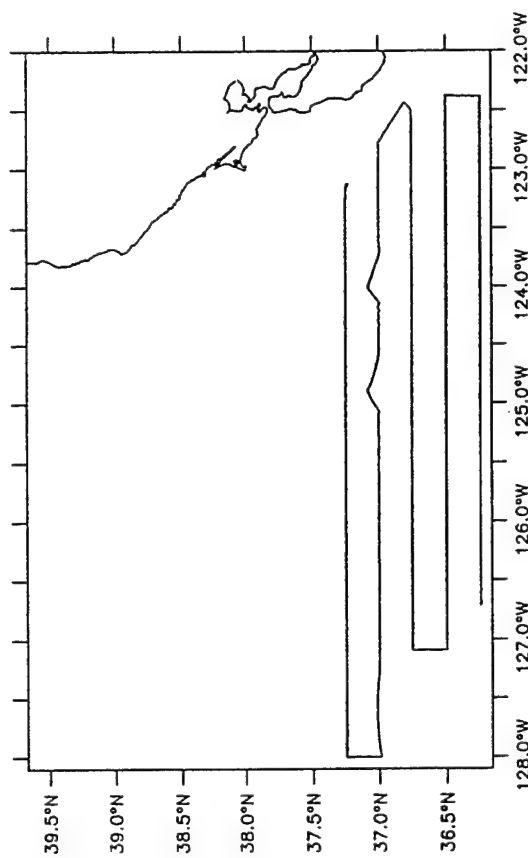
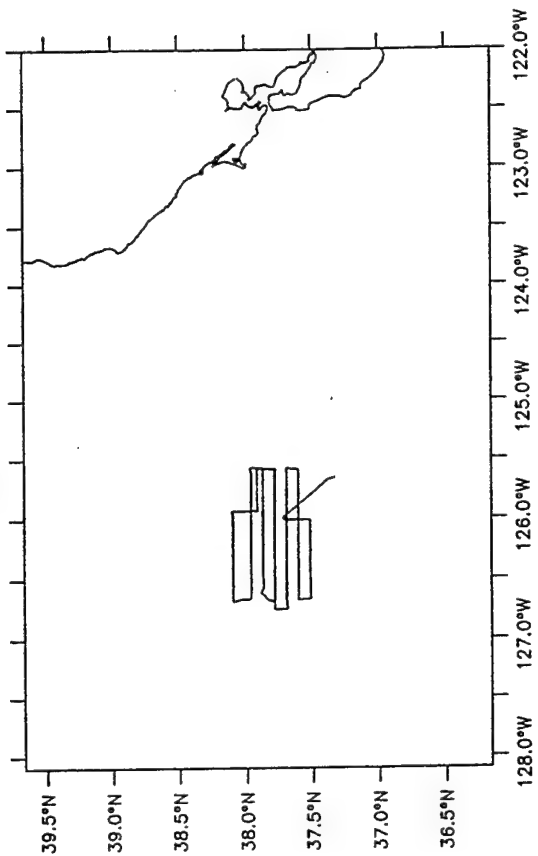


Figure 5(b) Ship's track, in space and time, of Seasoar Tows 3 and 4 of W9306A.

W9306A, Tow 6



W9306A, Tow 5

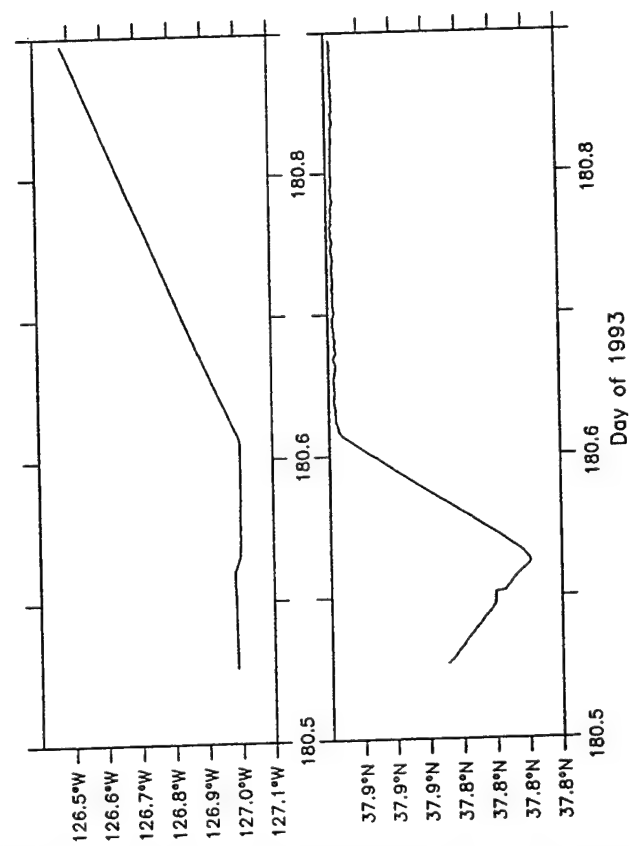
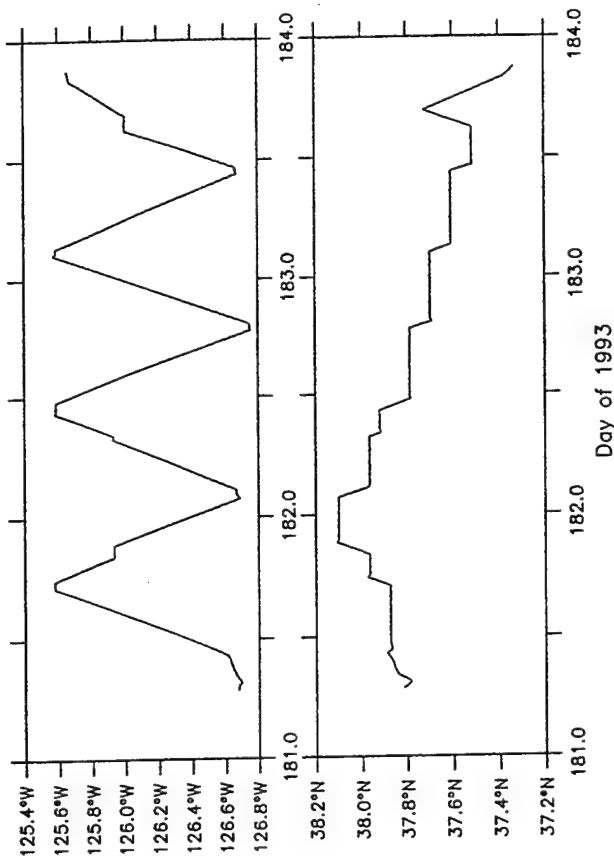
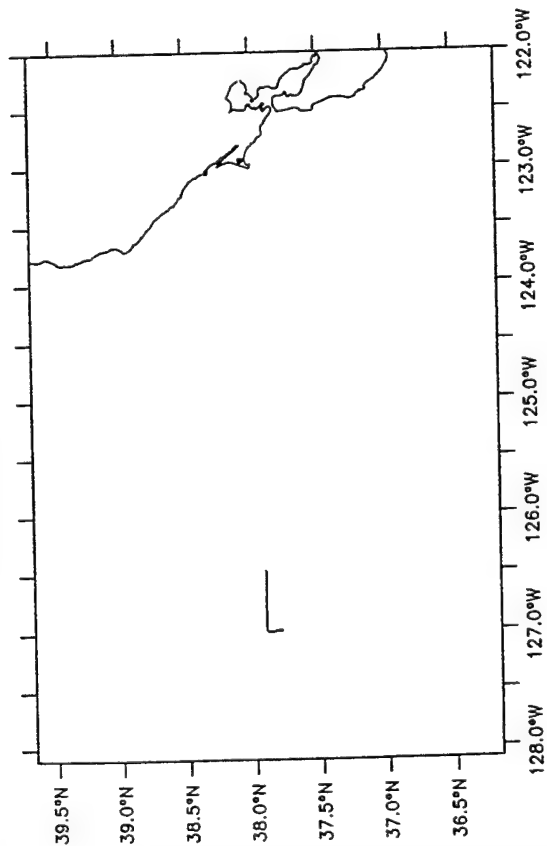
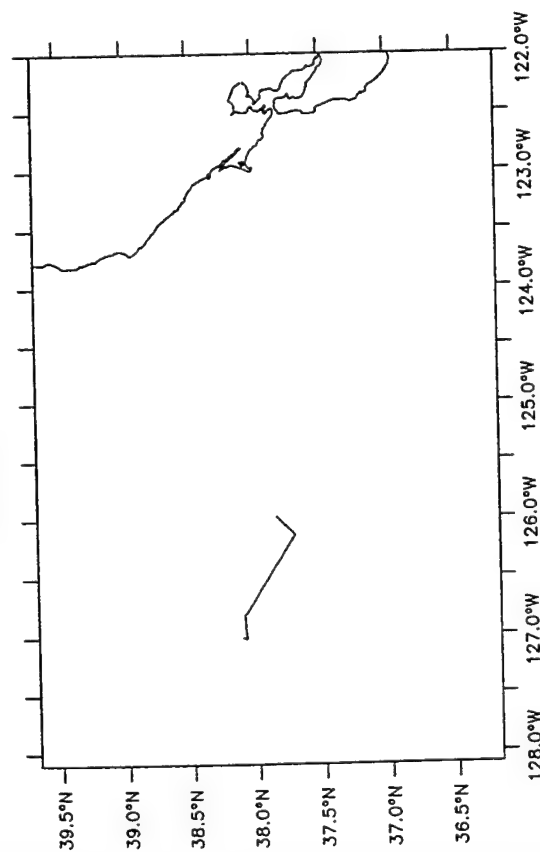


Figure 5(c) Ship's track, in space and time, of Seasoar Tows 5 and 6 of W9306A.

W9306A, Tow 7



W9306A, Tow 8

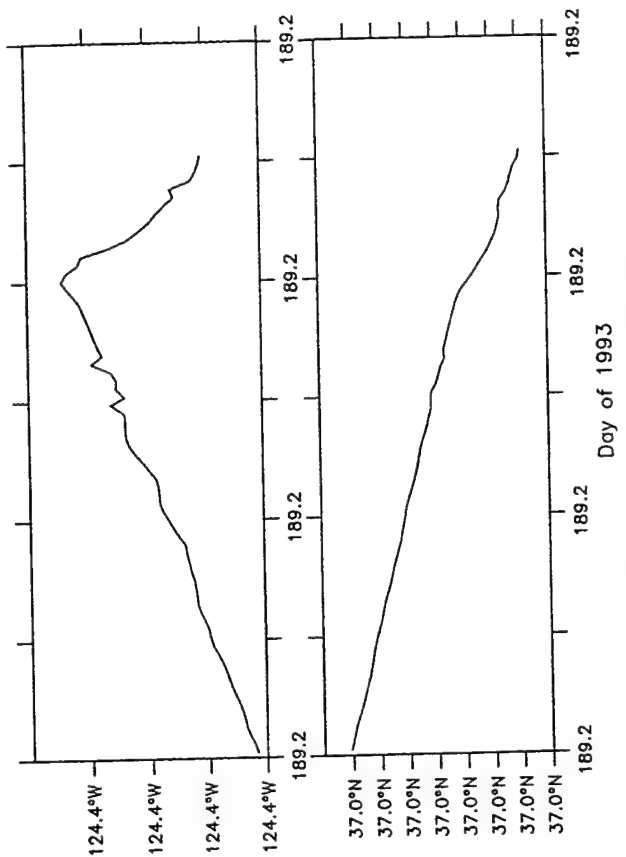
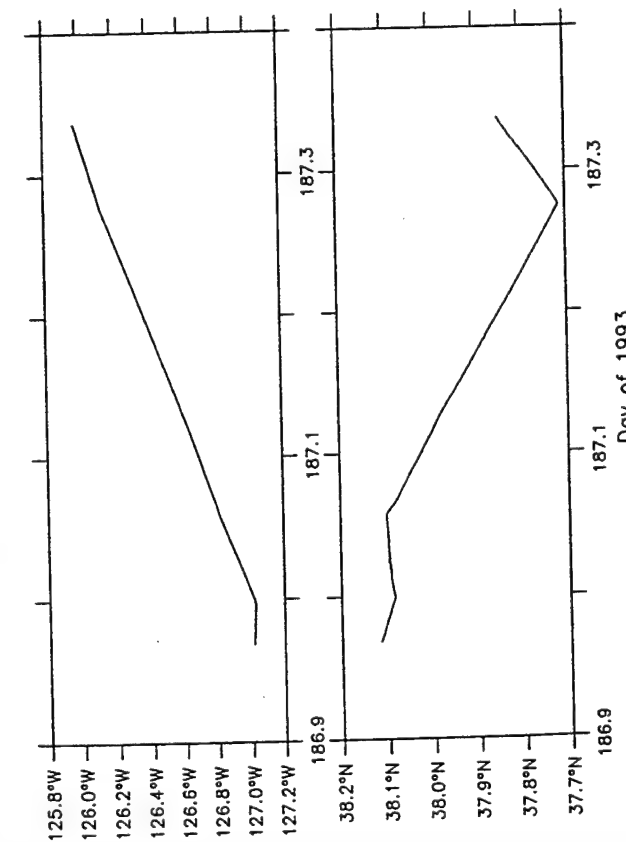
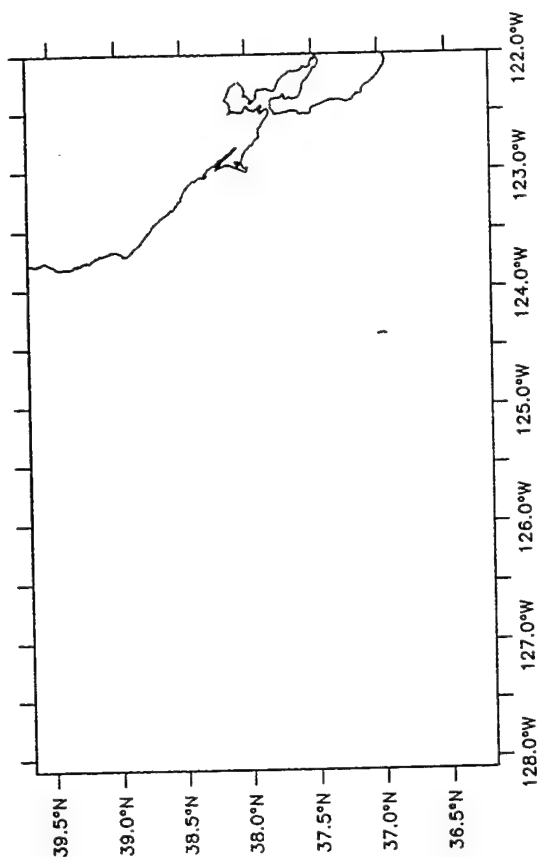
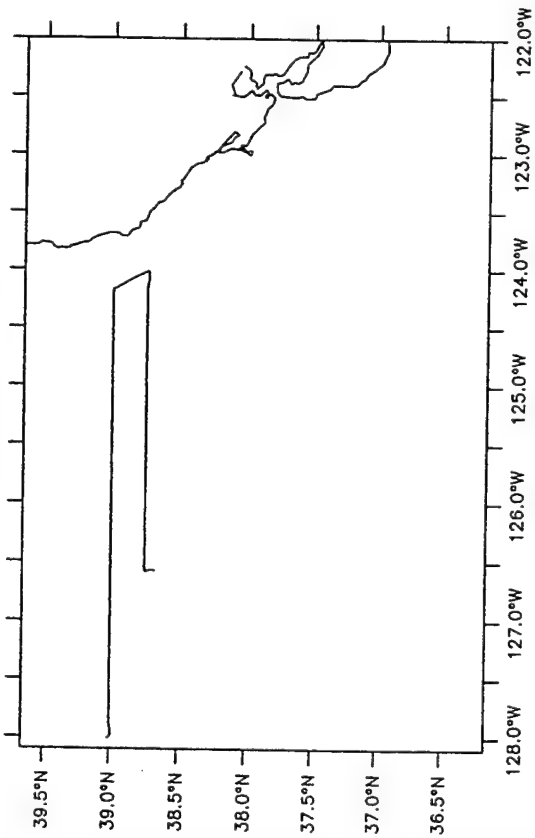


Figure 5(d) Ship's track, in space and time, of Seasoar Tows 7 and 8 of W9306A.

Table 5. Times(UTC) of cross-shore and alongshore sections of the large scale (LS) and small scale (SS) surveys of W9308B.

Start Time	Stop Time	Section Name	Start Time	Stop Time	Section Name
Tow 1			Tow 4 cont.		
08/16 03:14	08/16 15:38	LS 3 offshore	09/02 18:45	09/03 06:53	SS-3 line C
08/16 15:38	08/17 02:26	LS 3 inshore	09/03 06:53	09/03 08:48	SS-3 line CD
08/17 02:26	08/17 04:27	LS C	09/03 08:48	09/03 21:51	SS-3 line D
08/17 04:27	08/17 16:11	LS 4 inshore	09/03 21:51	09/04 00:06	SS-3 line DE
08/17 16:11	08/17 19:31	LS 4 offshore a	09/04 00:06	09/04 12:46	SS-3 line E
08/17 19:31	08/17 20:59	Tow 1 recovery	09/04 12:46	09/04 16:26	SS-3 line EF
Tow 2			09/04 16:26	09/04 22:56	SS-3 line F
08/18 03:08	08/18 03 56	Tow 2 pre	09/04 22:56	09/05 06:04	SS-3 line G
08/18 03:56	08/18 12:39	LS 4 offshore b	09/05 06:04	09/05 07:23	SS-3 end
08/18 12:39	08/18 14:36	LS D	Tow 5		
08/18 14:36	08/19 03:56	LS 5 offshore	09/09 15:32	09/09 19:31	SS-4 pre
08/19 03:56	08/19 17:36	LS 5 inshore	09/09 19:31	09/10 04:46	SS-4 line 0
08/19 17:36	08/19 19:49	LS E	09/10 04:46	09/10 13:45	SS-4 line 1
08/19 19:49	08/20 01:02	LS 6 inshore	09/10 13:45	09/10 14:46	SS-4 line A
08/20 01:02	08/20 21:02	LS 6 offshore	09/10 14:46	09/10 22:57	SS-4 line 2
08/20 21:02	08/20 22:47	LS F	09/10 22:57	09/10 23:49	SS-4 line B
08/20 22:47	08/21 11:45	LS 7 offshore	09/10 23:49	09/11 08:16	SS-4 line 3
08/21 11:45	08/22 01:50	LS 7 inshore	09/11 08:16	09/11 09:21	SS-4 line C
08/22 01:50	08/22 03:43	LS G	09/11 09:21	09/11 18:31	SS-4 line 4
08/22 03:43	08/22 16:12	LS 8 inshore a	09/11 18:31	09/11 19:16	SS-4 pump
08/22 16:12	08/22 23 42	Tow 2 mid	09/11 19:16	09/11 20:26	SS-4 line D
08/22 23:42	08/23 03:00	LS 8 inshore c	09/11 20:26	09/12 05:48	SS-4 line 5
08/23 03:00	08/23 16:40	LS 8 offshore	09/12 05:48	09/12 06:46	SS-4 line E
08/23 16:40	08/23 18:32	LS H	09/12 06:46	09/12 15:22	SS-4 line 6
08/23 18:32	08/23 19:31	LS 9 offshore pre	09/12 15:22	09/12 19:13	SS-4 line F
08/23 19:31	08/23 20:47	Tow 2 end	09/12 19:13	09/13 12:15	SS-4 line G
Tow 3			09/13 12:15	09/13 17:16	SS-4 line H
08/24 02:33	08/24 13:22	LS 9 offshore a	09/13 17:16	09/14 01:47	SS-4 line 7
08/24 13 22	08/24 15:12	LS 9 offshore b	09/14 01:47	09/14 02:46	SS-4 line I
08/24 15 12	08/24 17:00	LS 9 offshore c	09/14 02:46	09/14 15:03	SS-4 line 8
08/24 17 00	08/26 20:36	Tow 3 end	09/14 15:03	09/14 15:57	SS-4 line J
Tow 4			09/14 15:57	09/15 03:08	SS-4 line 9
08/30 06 33	08/31 01:37	LS 9 inshore	09/15 03:08	09/15 06:01	SS-4 line 9d
08/31 01:37	08/31 03:08	LS M	09/15 06:01	09/15 06:54	SS-4 line K
08/31 03:08	08/31 15:51	LS 10 offshore c	09/15 06:54	09/15 08:20	SS-4 line 10d
08/31 15:51	08/31 17:46	LS I	09/15 08:20	09/15 17:37	SS-4 line 10
08/31 17:46	09/01 06:35	LS 11 offshore	09/15 17:37	09/15 18:40	SS-4 line L
09/01 06:35	09/01 10:04	LS 11 inshore	09/15 18:40	09/16 03:43	SS-4 line 11
09/01 10:04	09/01 12:11	LS N	09/16 03:43	09/16 06:18	SS-4 line 11d
09/01 12:11	09/01 15:00	LS 10 inshore	09/16 06:18	09/16 07:21	SS-4 line M
09/01 15:00	09/02 01:23	SS-3 line A	09/16 07:21	09/16 08:32	SS-4 line 12d
09/02 01:23	09/02 03:12	SS-3 line AB	09/16 08:32	09/16 17:38	SS-4 line 12
09/02 03:12	09/02 16:55	SS-3 line B	09/16 17:38	09/16 18:38	SS-4 line N
09/02 16:55	09/02 18:45	SS-3 line BC			

W9308B, Tow 1



W9308B, Tow 2

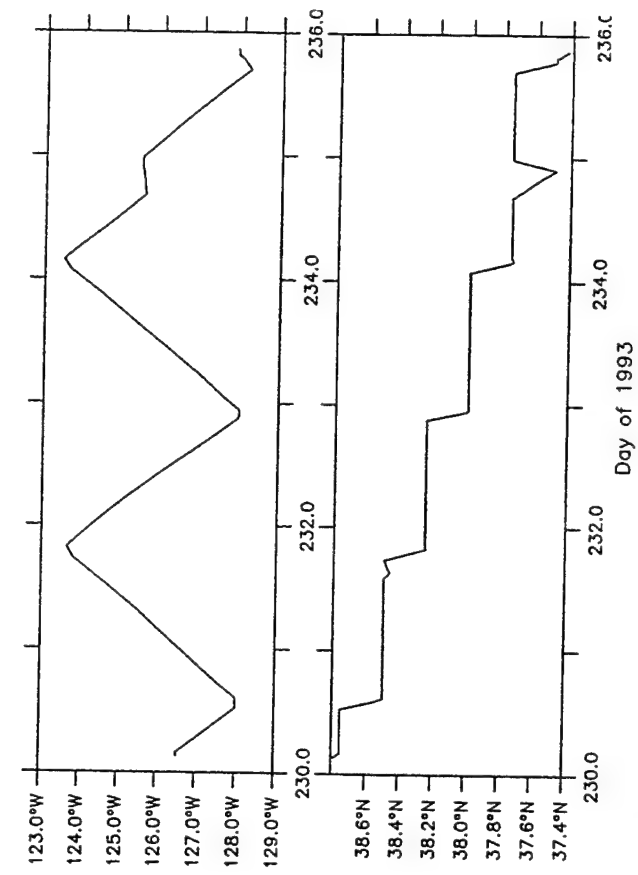
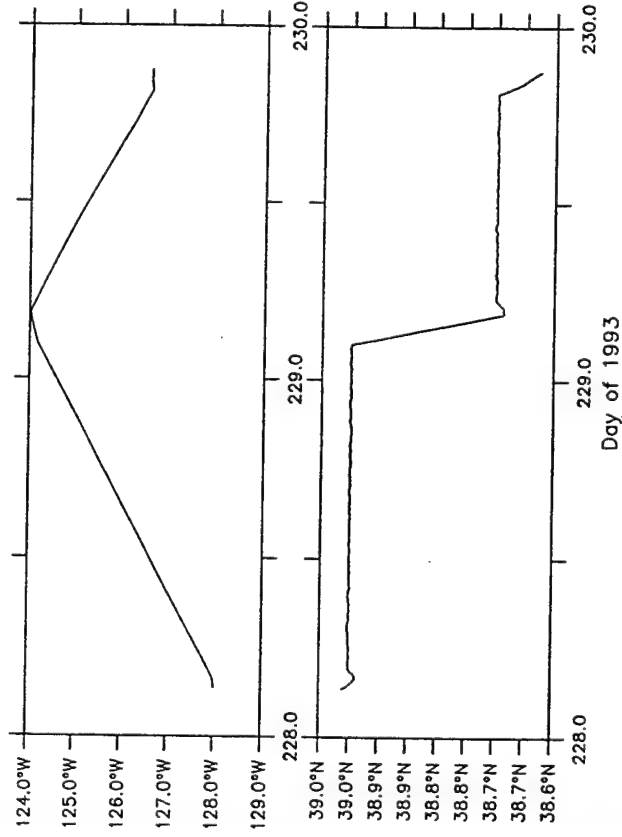
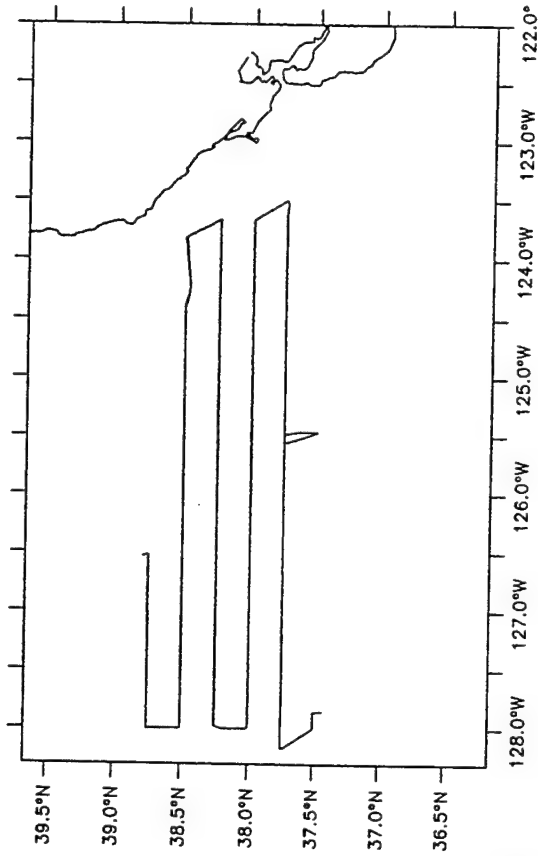
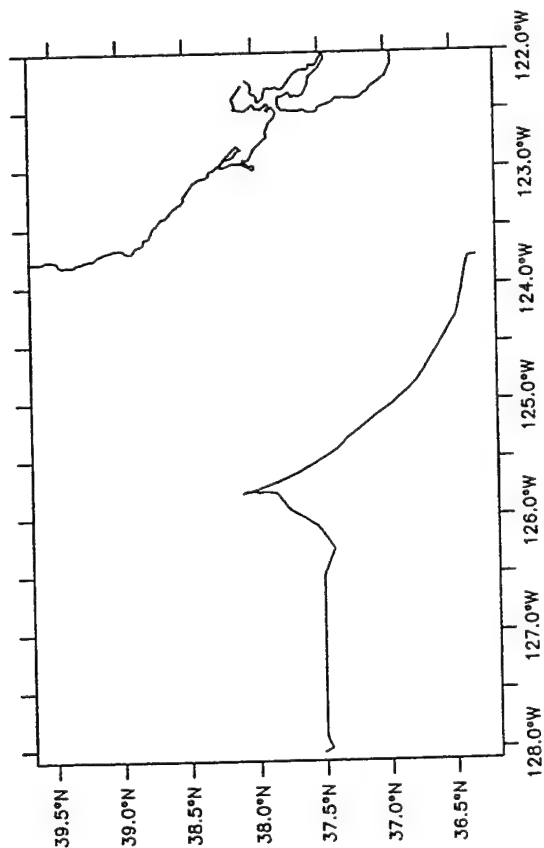


Figure 6(a) Ship's track, in space and time, of Seasoar Tows 1 and 2 of W9308B.

W9308B, Tow 3



W9308B, Tow 4

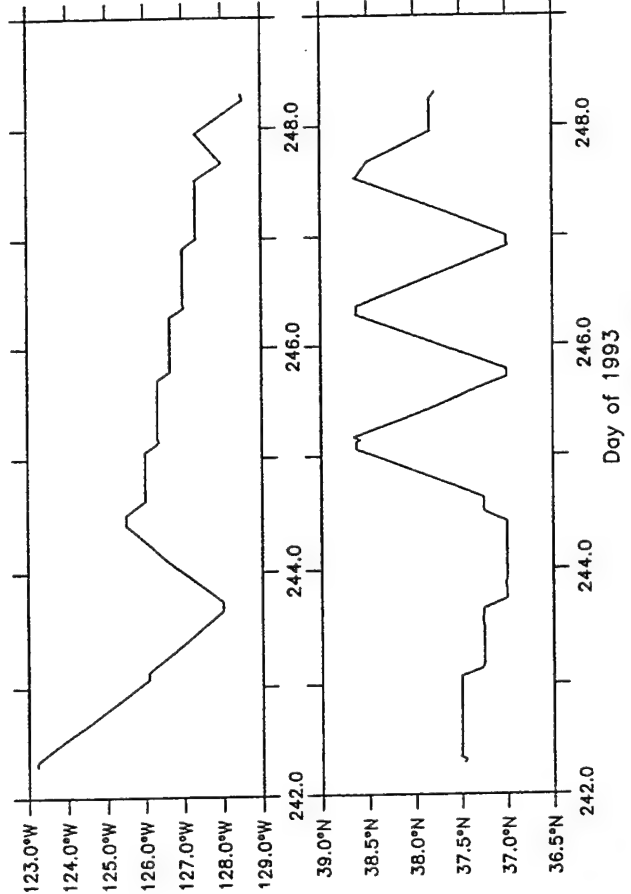
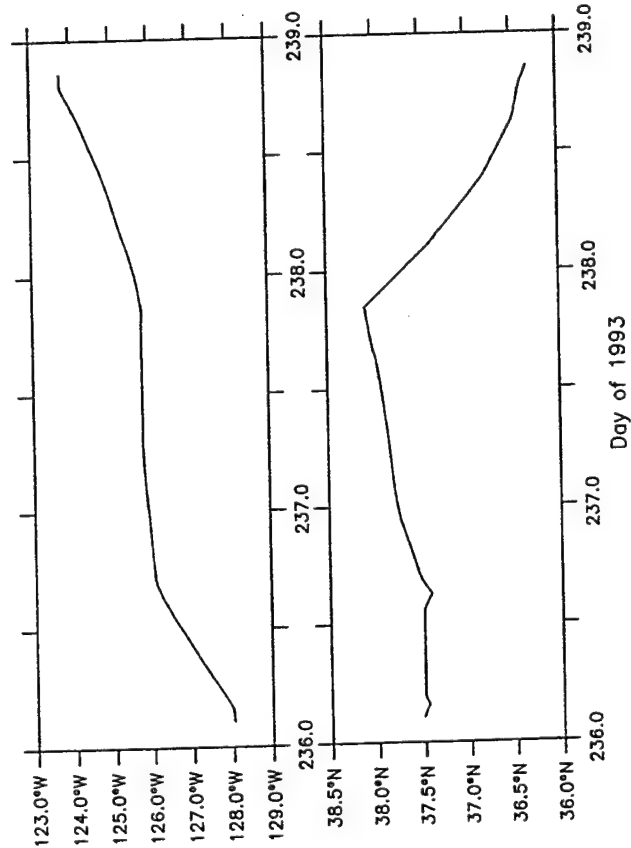
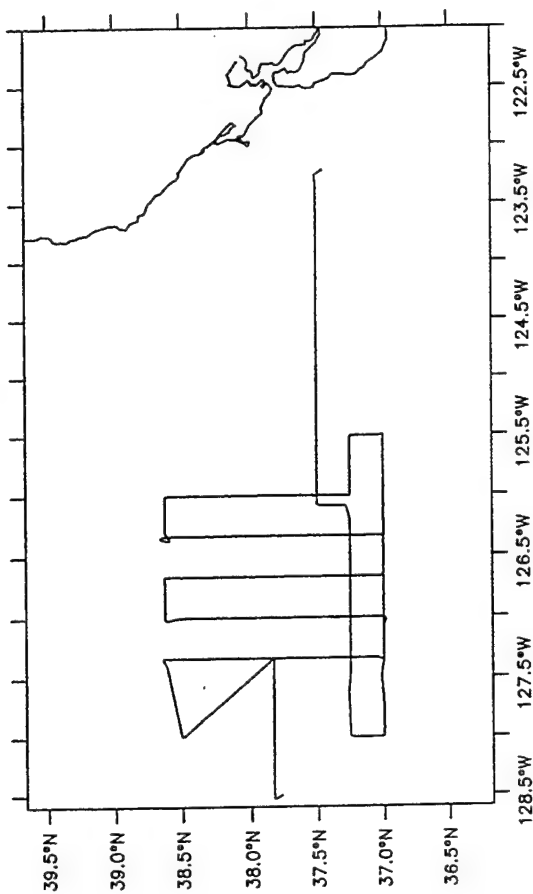


Figure 6(b) Ship's track, in space and time, of Seasoar Tows 3 and 4 of W9308B.

W9308B, Tow 5

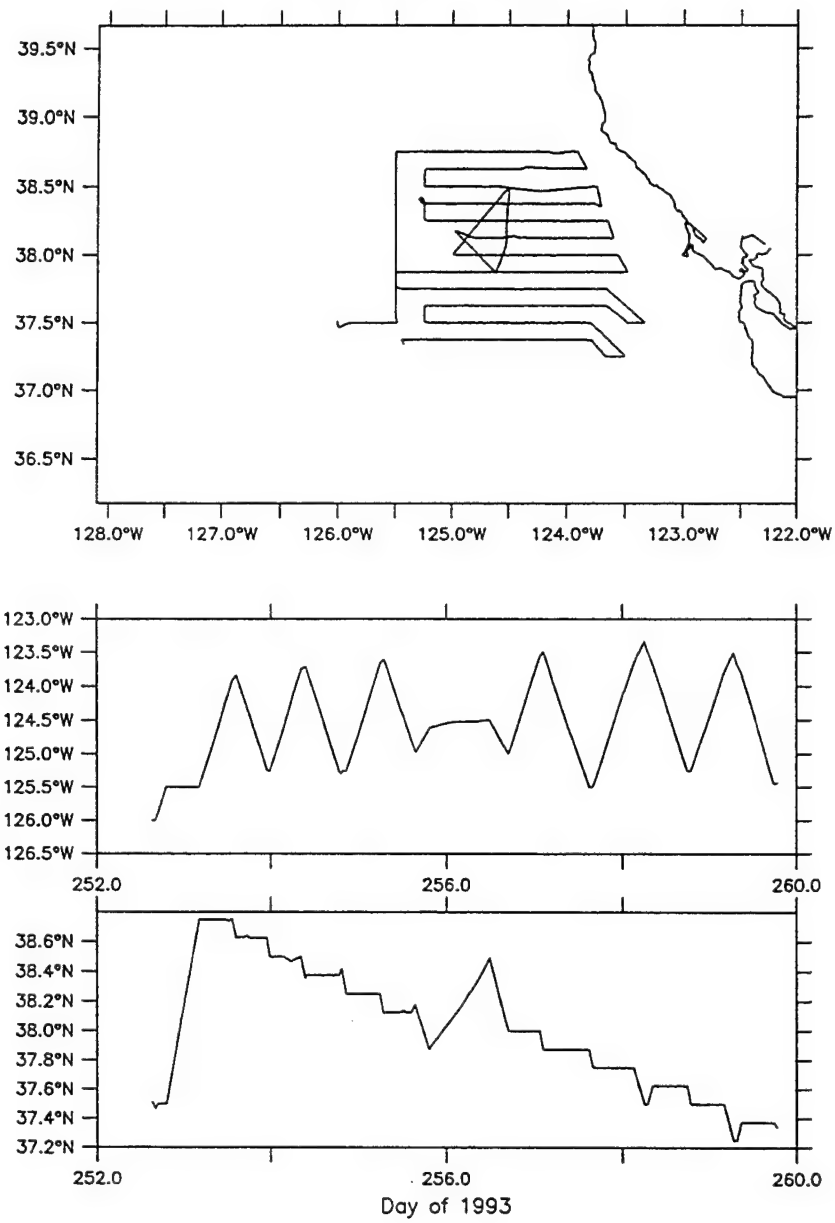


Figure 6(c) Ship's track, in space and time, of Seasoar Tow 5 of W9308B.

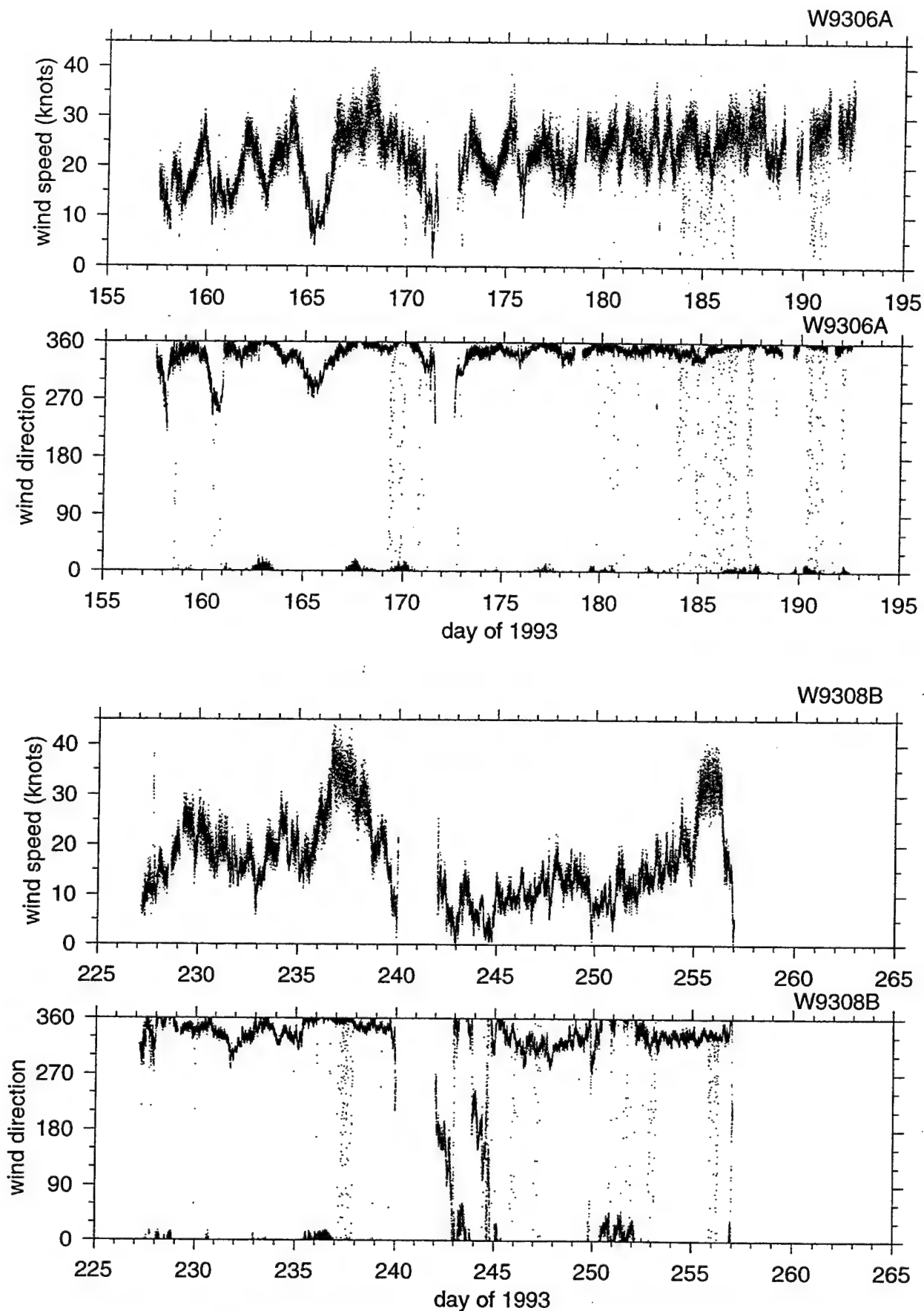


Figure 7. Shipboard winds from the dual anemometers on Wecoma. Port or starboard sensor was selected for maximum wind speed at each sample, to reduce shading.

Table 6. Summary of CTD stations during W9306A.

Station No.	Date	Time UTC	Latitude °N	Longitude °W	Cast Depth	Wind Dir	Wind Speed	Atm.P. (mbar)
1	7 June	1311	39 31.6	128 02.3	503	325	21	1023.5
2	9 June	1121	39 14.3	126 50.1	508	280	18	1019.2
3	9 June	2036	39 15.0	126 53.4	507	255	14	1020.3
4	18 June	2200	37 32.7	126 01.2	508	000	25	1015.5
5	19 June	1850	37 33.2	123 35.1	513	345	23	1014.1
6	19 June	2221	37 30.0	123 24.0	507	345	12	1014.3
7	20 June	0005	37 30.1	123 14.9	502	325	12	1013.7
8	21 June	2038	37 15.4	123 09.3	507	305	21	1017.8
9	28 June	1745	36 14.9	126 43.0	506	350	23	1019.2
10	29 June	2032	37 55.1	126 28.0	506	345	28	1020.0
11	30 June	0550	37 49.9	126 40.1	71	-	-	-
12	2 July	2122	37 18.8	125 39.1	507	345	28	1017.5
13	3 July	0335	37 32.7	125 44.6	507	340	30	1015.1
14	3 July	2053	37 36.7	125 55.6	510	340	24	1017.2
15	4 July	0657	37 44.8	126 05.3	506	345	26	1014.3
16	4 July	1257	37 50.0	126 11.7	1007	335	28	1013.2
17	4 July	1824	37 53.7	126 20.5	508	350	30	1013.9
18	4 July	2349	37 55.8	126 27.4	508	350	33	1014.3
19	5 July	0557	37 57.9	126 34.3	506	003	35	1014.2
20	5 July	1156	37 59.5	126 42.0	1007	355	30	1014.3
21	7 July	1555	36 45.2	124 20.8	507	355	23	1010.2
22	9 July	0429	37 17.9	127 00.0	509	350	28	1015.2
23	9 July	0605	37 21.8	126 55.0	506	010	32	1015.5
24	9 July	0734	37 25.5	126 50.0	508	000	27	1015.6
25	9 July	0905	37 29.3	126 44.7	508	005	34	1014.8
26	9 July	1132	37 33.6	126 40.2	508	000	28	1015.2
27	9 July	1252	37 36.8	126 35.0	505	005	28	1015.4
28	9 July	1450	37 40.5	126 30.0	507	345	30	1015.6
29	9 July	1657	37 47.9	126 20.0	507	355	32	1016.3
30	9 July	1819	37 51.7	126 15.1	507	355	34	1016.5
31	9 July	1941	37 55.6	126 10.0	507	000	32	1017.0
32	9 July	2111	37 59.2	126 05.0	506	350	34	1016.2
33	10 July	0140	38 03.1	126 00.0	509	005	33	1016.6
34	10 July	0306	38 06.8	125 55.0	508	350	35	1016.3
35	10 July	0512	38 10.8	125 50.2	508	345	35	1016.6
36	10 July	0641	38 14.2	125 45.0	507	340	35	1017.0
37	10 July	0814	38 17.9	125 40.0	508	000	34	1016.2

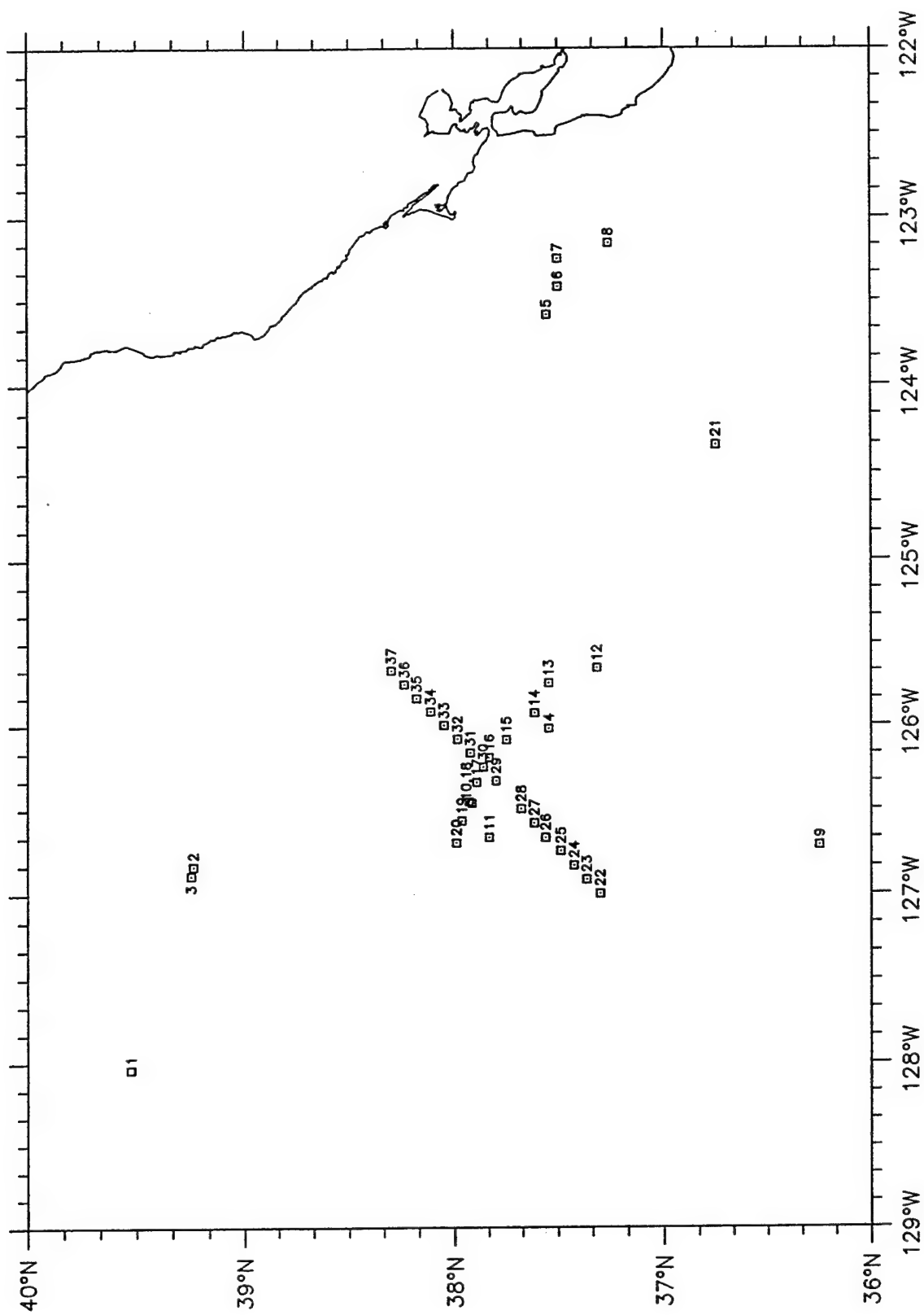


Figure 8. Location of conventional CTD stations during W9306A.

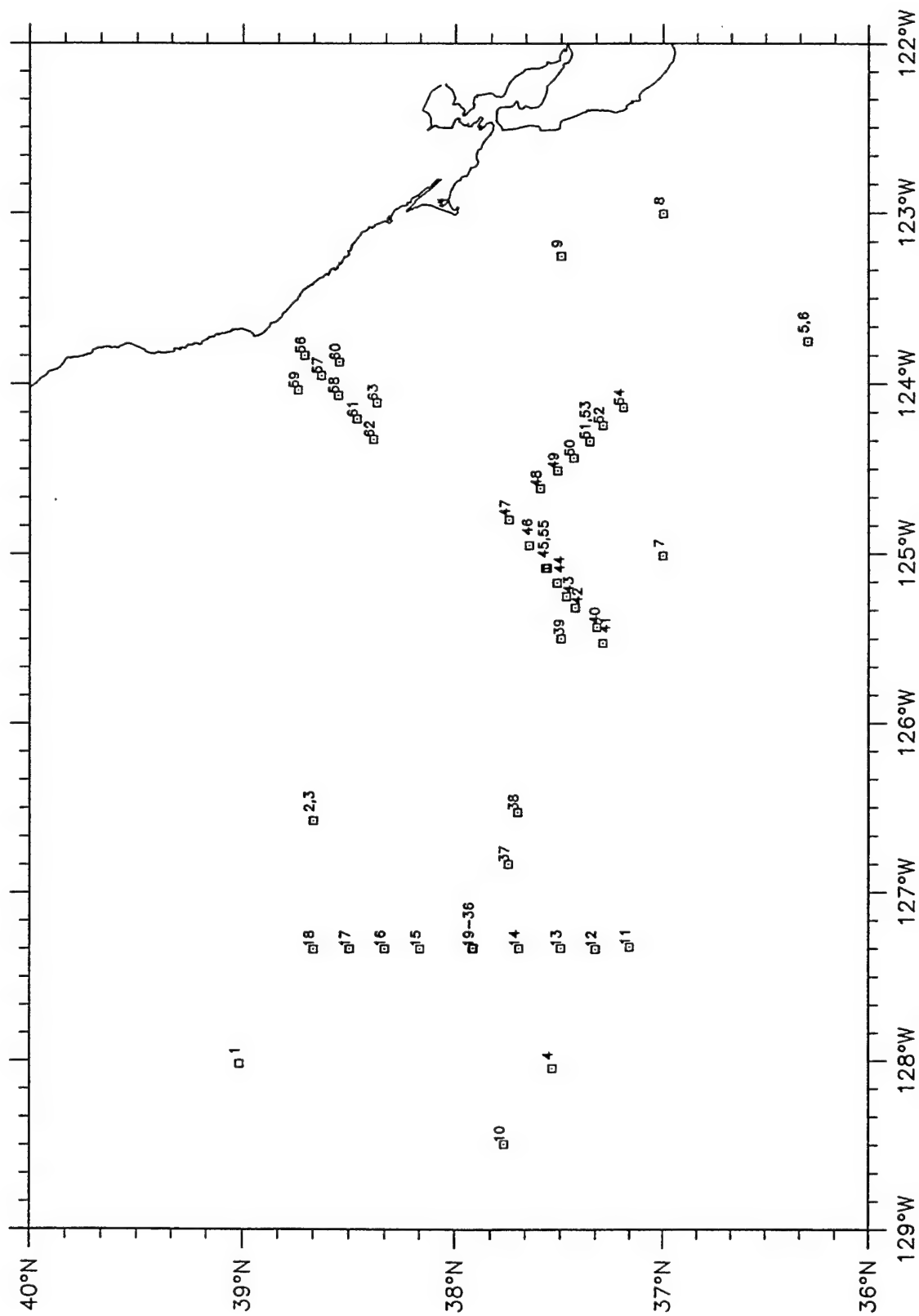


Figure 9. Location of conventional CTD stations during W9308B.

Table 7. Summary of CTD stations during W9308B.

Station No.	Date	Time UTC	Latitude °N	Longitude °W	Cast Depth	Wind Dir	Wind Speed	Atm. P. (mbar)
1	16 Aug	0155	39 01.0	128 01.1	504	355	19	1018.3
2	17 Aug	2125	38 40.0	126 34.7	99	-	-	-
3	17 Aug	2245	38 32.3	126 34.7	507	335	21	1019.4
4	24 Aug	0110	37 32.3	128 02.7	301	355	29	1022.2
5	26 Aug	2120	36 17.8	123 45.2	72	350	21	1017.0
6	26 Aug	2128	36 17.8	123 45.2	507	000	21	1017.0
7	27 Aug	0553	37 00.1	125 00.7	506	340	25	1017.8
8	27 Aug	1657	37 00.1	123 00.0	507	350	9	1015.7
9	30 Aug	0510	37 30.0	123 15.0	506	180	16	1010.9
10	5 Sept	0732	37 46.1	128 29.8	506	310	15	1021.5
11	5 Sept	1425	37 10.1	127 19.4	506	325	16	1018.9
12	5 Sept	1900	37 20.1	127 20.2	505	320	16	1019.0
13	5 Sept	2230	37 30.0	127 19.9	506	320	19	1017.5
14	6 Sept	0227	37 41.9	127 20.0	505	340	13	1016.5
15	6 Sept	0702	38 10.0	127 20.1	506	330	14	1016.5
16	6 Sept	1130	38 20.2	127 20.1	505	320	13	1014.6
17	6 Sept	1530	38 30.0	127 20.1	505	320	14	1016.6
18	6 Sept	1900	38 40.0	127 20.2	506	light	airs	1016.8
19	7 Sept	0104	37 55.0	127 20.0	506	295	6	1017.6
20	7 Sept	0450	37 54.9	127 20.0	505	320	8	1019.0
21	7 Sept	0718	37 55.2	127 19.9	505	325	9	1019.7
22	7 Sept	0937	37 55.1	127 20.0	505	345	12	1020.0
23	7 Sept	1431	37 55.0	127 19.9	505	015	7	1020.6
24	7 Sept	1655	37 54.9	127 19.8	505	360	12	1021.2
25	7 Sept	1935	37 55.1	127 20.0	505	015	12	1022.2
26	7 Sept	2220	37 55.1	127 19.9	506	010	8	1022.0
27	8 Sept	0017	37 55.0	127 20.0	505	355	8	1021.2
28	8 Sept	0217	37 55.0	127 20.0	505	355	16	1021.3
29	8 Sept	0515	37 55.0	127 20.0	505	020	22	1021.3
30	8 Sept	0721	37 55.0	127 20.0	511	025	20	1021.2
31	8 Sept	1009	37 55.0	127 19.9	505	025	20	1021.2
32	8 Sept	1246	37 55.0	127 20.0	506	000	10	1020.8
33	8 Sept	1510	37 55.0	127 19.9	2000	010	12	1020.8
34	8 Sept	1835	37 55.0	127 20.0	506	010	14	1020.8
35	8 Sept	2055	37 55.0	127 19.9	506	010	15	1020.0
36	8 Sept	2300	37 55.0	127 20.0	505	025	11	1019.2
37	9 Sept	0330	37 45.0	126 50.0	506	010	12	1018.1

Table 7 (cont'd). Summary of CTD stations during W9308B.

Station No.	Date	Time UTC	Latitude °N	Longitude °W	Cast Depth	Wind Dir	Wind Speed	Atm.P. (mbar)
38	9 Sept	0926	37 42.3	126 31.7	504	330	17	1017.7
39	9 Sept	1243	37 30.0	125 30.0	507	330	16	1016.5
40	16 Sept	1910	37 19.8	125 25.9	506	310	17	1019.0
41	16 Sept	2300	37 18.0	125 31.5	506	310	13	1018.8
42	17 Sept	0309	37 26.0	125 19.0	505	320	18	1018.0
43	17 Sept	0548	37 28.5	125 15.1	506	320	18	1018.3
44	17 Sept	0859	37 31.1	125 10.3	506	315	15	1018.7
45	17 Sept	1138	37 34.5	125 05.1	508	315	21	1018.5
46	17 Sept	1452	37 39.1	124 57.0	505	310	16	1019.0
47	17 Sept	1755	37 44.9	124 48.0	506	330	17	1019.8
48	17 Sept	2200	37 35.9	124 36.8	505	320	16	1020.0
49	18 Sept	0030	37 31.0	124 30.5	505	335	17	1019.5
50	18 Sept	0313	37 26.4	124 26.0	506	340	23	1018.8
51	18 Sept	0649	37 21.8	124 20.2	514	330	20	1019.8
52	18 Sept	0944	37 18.0	124 14.5	506	325	24	-
53	18 Sept	1237	37 21.9	124 20.0	120	345	24	1015.4
54	18 Sept	1422	37 12.1	124 08.2	506	330	12	1012.8
55	19 Sept	1206	37 33.9	125 05.0	506	345	24	1015.4
56	19 Sept	2210	38 42.6	123 05.0	401	330	12	1012.8
57	20 Sept	0122	38 37.9	123 57.1	1825	335	22	1011.9
58	20 Sept	0528	38 33.3	124 04.0	2001	350	29	1011.2
59	20 Sept	1008	38 44.5	124 02.2	1822	345	29	1011.1
60	20 Sept	1305	38 33.0	123 52.3	1901	345	20	1012.3
61	20 Sept	1645	38 28.1	124 12.4	2002	345	30	1013.0
62	20 Sept	1945	38 23.5	124 19.5	2002	345	30	1012.5
63	20 Sept	2240	38 22.5	124 06.6	2002	345	25	1010.8

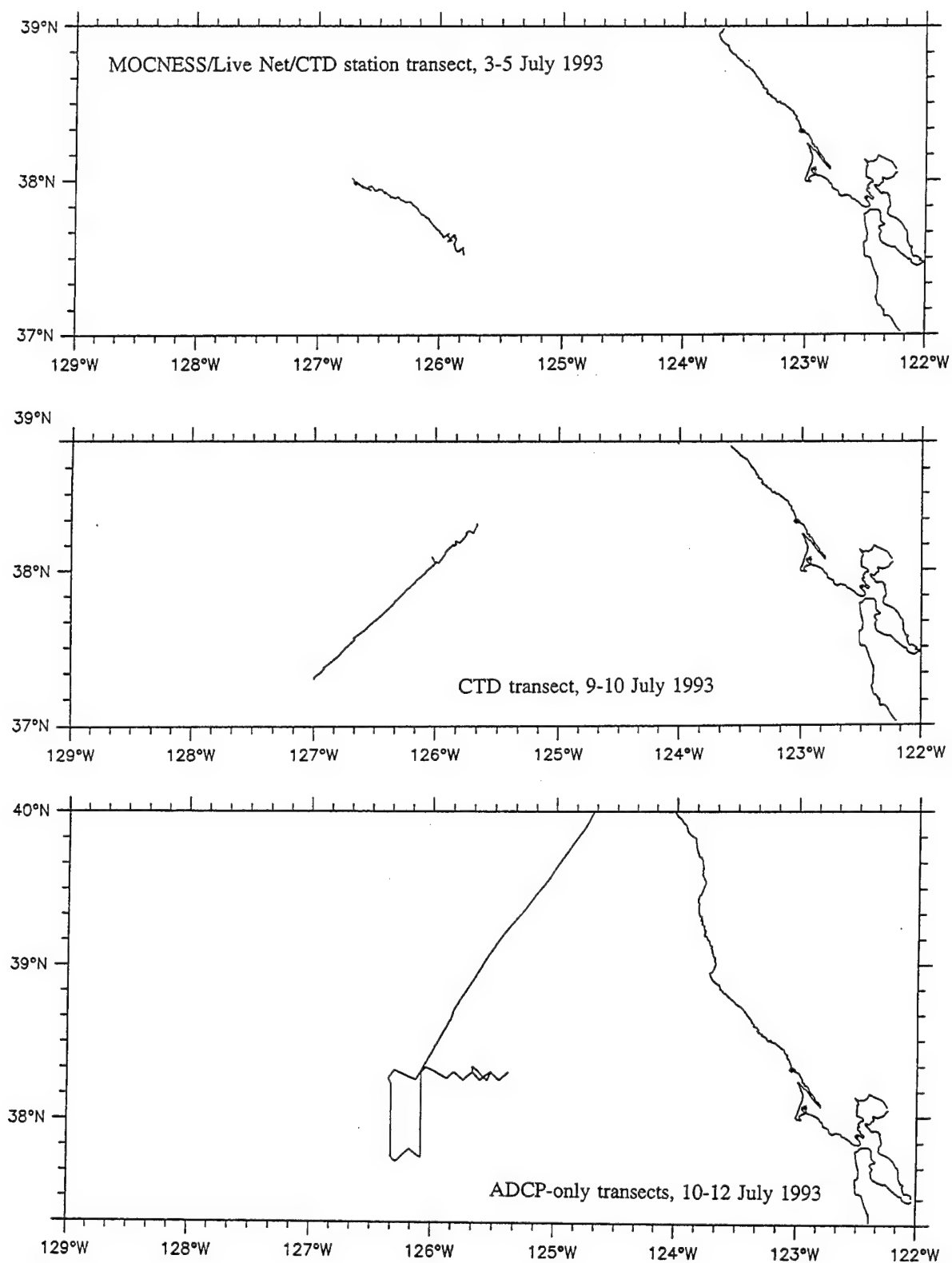


Figure 10. Ship's tracks during MOCNESS, Live Net CTD, and ADCP-only transects, W9306A.

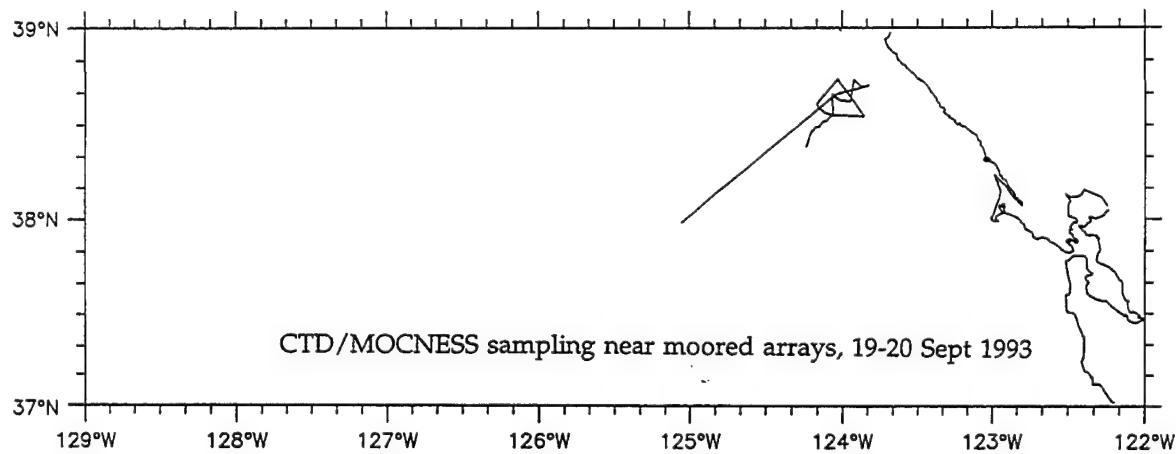
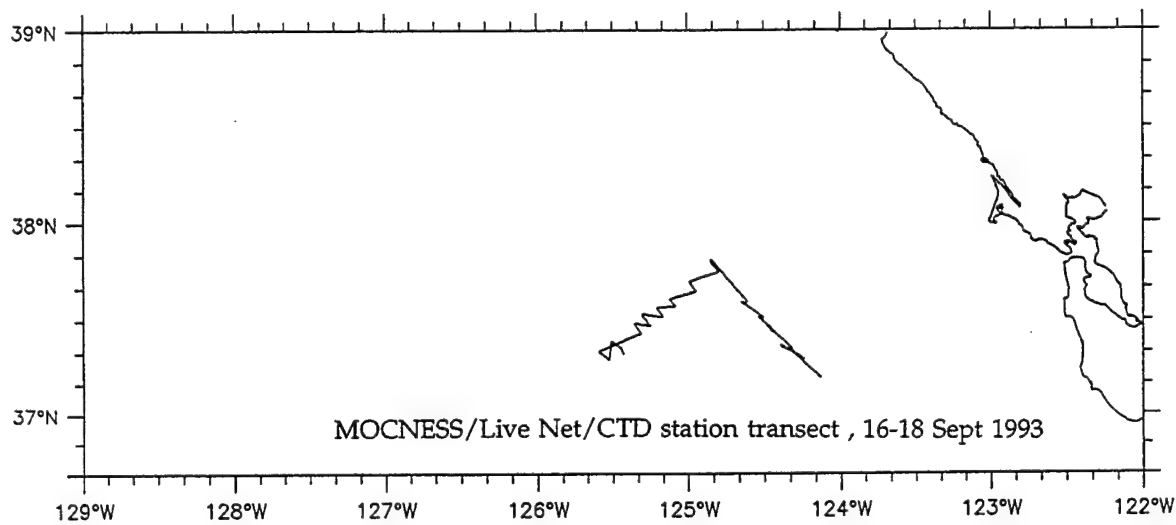
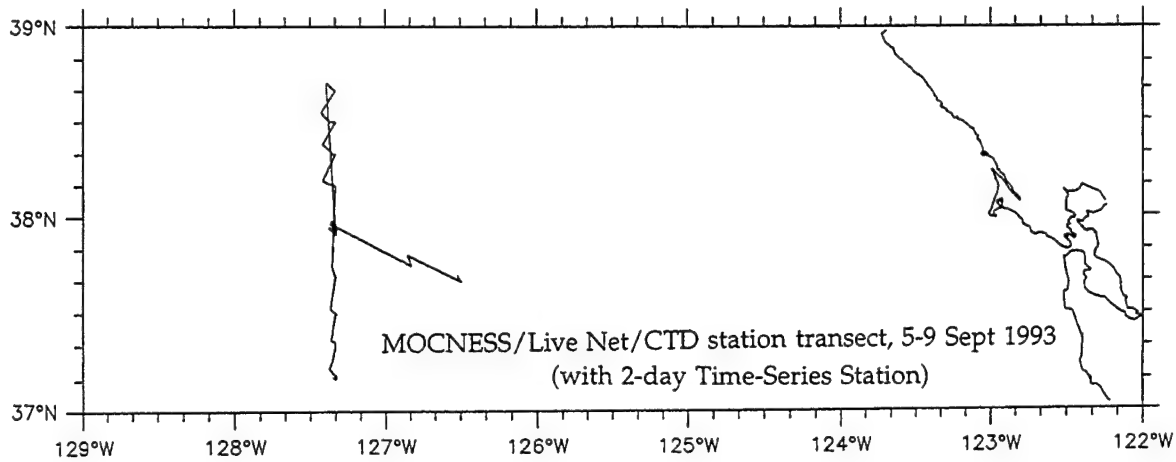


Figure 11. Ship's tracks during MOCNESS, Live Net, and CTD sampling.

CTD Data Acquisition, Calibration and Data Processing

All CTD/rosette casts were made with an SBE 9/11-plus CTD system equipped with dual ducted temperature and conductivity sensors (Table 8). Mounted adjacent to the CTD were a Sea Tech 25cm transmissometer, S/N 33D, and a Sea Tech 3000m fluorometer. In addition to the CTD casts made along transects, at anchor stations, and adjacent to the moored array, CTD casts were made to monitor the calibration of the Seasoar CTD data. These calibration casts were made immediately before and after each Seasoar tow, with as little delay as possible. The typical maximum sampling depth was about 500 m for both cruises (Table 6, 7); several casts to 2000 m were made during W9308B (Table 7). Raw 24 Hz CTD data were acquired on an IBM compatible PC using the SEASAVE module of SEASOFT version 4.015 (Anon., 1992); temperature and conductivity data were recorded from both pumped sensor ducts.

At each station a few salinity samples were collected from Niskin bottles at two or more depths for *in situ* calibration of the conductivity sensors; CTD values (calculated from the most recent manufacturer's pre-cruise calibration) of pressure, temperature, and conductivity at the time of rosette firing for each sample were recorded both by the PC and manually on the station log sheets. Samples were analysed on a Guildline Autosol 8400A Salinometer that was standardized with IAPSO Standard Water at the beginning and end of each batch of 24 samples. Sample conductivities were calculated using the sample salinity value with the CTD temperature and pressure values; a value of $42.914 \text{ mmho cm}^{-1}$ for conductivity of standard seawater at 15°C (Culkin and Smith, 1980) was used to convert the measured sample conductivity ratios to conductivity. During W9308B, station 56, the primary conductivity cell was damaged and replaced, so sample data from stations 1-55 only were used for the primary sensor calibration. Analysis of the sample and CTD conductivity differences showed conductivity corrections were needed for both the primary and secondary sensors of each cruise (Table 9). For W9306A a slope correction to conductivity was sufficient, and for W9308B a slope and offset were applied to conductivity.

CTD data were processed on an IBM-compatible PC using applicable SEASOFT modules. Data from the primary sensors were used for final processing for all CTD stations of W9306A and for stations 1-55 of W9308B. For stations 56-63 of W9308B the secondary sensors were used for final processing. The DATCNV module of SEASOFT was used with the pre-cruise calibration constants to calculate 24 Hz values of pressure, temperature and conductivity from the raw frequencies. When necessary, the output data file was edited to remove any spikes and any values inadvertently recorded before the pressure minimum at the beginning of the cast. The CELLTM module was used to correct for the thermal mass of the conductivity cell, assumed to have a thermal anomaly amplitude of 0.03 and a time constant of

Table 8. Instrument and sensors used for CTD, Seasoar, and underway salinity sampling, W9306A and W9308B, and date of most recent manufacturer's pre-cruise calibration.

System (Instrument)	Sensor	SN	Pre-Cruise Calibration
CTD/Rosette			
W9306A (SBE 9/11 plus, SN 0256)	P	50130	05 Mar 92
	T1	1371	20 Apr 93
	T2	1367	20 Apr 93
	C1	1030	25 Mar 93
	C2	1041	25 Mar 93
W9308B (SBE 9/11 plus, SN 2843)	P	92843	07 Nov 89
	T1	1371	20 Apr 93
	T2	1367	20 Apr 93
	C1	1030	25 Mar 93
	C1	657	20 Oct 89
(Stations 1-56)	C2	1041	25 Mar 93
(Stations 57-63)			
(Stations 1-63)			
Seasoar (W9306A and W9308B)	P	50506	23 April 92
	T1	1364	06 May 93
	T2	1366	06 May 93
	C1	1021	07 May 93
	C2	1070	07 May 93
5-m Intake (W9306A and W9308B)	T	854	06 May 93
	C	830	21 April 93

Table 9. Results of *in situ* conductivity calibration for both sensor pairs for W9306A and W9308B. Columns show the range of station numbers, number of samples (N), slope and offset applied to CTD conductivity, and the average and standard deviations of the salinity differences between the sample values and the corrected CTD data.

Sta	N	Slope		Offset		Average		Std. Dev.	
		C1	C2	C1	C2	S1	S2	S1	S2
W9306A 1-37	82	1.00008	1.00011	0.0	0.0	0.000	0.000	0.004	0.004
W9308B 1-55	108	1.00061	—	-0.01636	—	0.000	—	0.003	—
W9308B 1-63	127	—	1.00057	—	-0.01436	—	0.000	—	0.003

9 seconds. Ascending portions of the 24-Hz data file were removed by LOOPEDIT with the minimum velocity set to 0.0 m/s. The remaining data were averaged to 1 dbar values using BINAvg. The final processed data files consist of 1 dbar values of pressure, temperature and conductivity. These processed data files were transferred to a SUN computer where we used standard algorithms (Fofonoff and Millard, 1983) to calculate salinity, potential temperature, density anomaly (sigma-theta), specific volume anomaly, and geopotential anomaly (dynamic height).

Fluorometer Calibration

The SeaTech fluorometer measures the fluorescence emitted by photosynthetic pigments (chlorophyll and related pigments) in marine phytoplankton following excitation with blue light from a xenon flashlamp. The fluorometer produces analog output of 0 to 5 VDC which is digitized by the CTD and merged into the data stream. Calibration samples were obtained from multiple depths via rosette samples at each CTD station. Tim Cowles (OSU) and coworkers compared *in vivo* fluorescence values from the fluorometer with the extracted pigment concentrations obtained from the calibration samples, using standard chlorophyll extraction techniques for frozen, filtered samples. Results of this calibration are presented for each cruise in Table 10. There were insufficient sample data to determine the calibration below 100m and for nights for W9306A. Stations were defined as nearshore or offshore based on geographic location and fluorescence profiles. Offshore stations are characterized by fluorescence profiles typical of oligotrophic waters, i.e., with low surface levels and a deep chlorophyll maximum; nearshore stations are characterized by chlorophyll levels that are elevated at surface and decrease with depth. CTD stations 5 - 8 were the nearshore stations used in the W9306A analyses. For W9308B, offshore CTD stations were 1-55, and nearshore CTD stations were 56-63.

Table 10. Calibration equations for converting fluorescence voltage to total pigment ($\mu\text{g/l}$). Each equation was derived from data in the indicated depth range, using N samples correlated at the r^2 level.

Depth Range	Calibration Equation	N	r^2
<u>W9306A Offshore, Day or Night</u>			
0-100m	total pigment = $0.90 * \text{volts}$	25	67.9%
<u>W9306A Nearshore, Day (0550-2045 local time (GMT -7))</u>			
0-100m	total pigment = $0.90 * \text{volts} + 0.26$	20	67.7%
<u>W9308B Offshore, Day or Night</u>			
0-150m	total pigment = $0.89 * \text{volts} + 0.06$	232	81.1%
<u>W9308B Nearshore, Day or Night</u>			
0-70m	total pigment = $0.74 * \text{volts} + 0.16$	28	74.4%

Seasoar Data Acquisition and Preliminary Processing

The Chelsea Instruments Seasoar vehicle was equipped with a SBE 9/11-plus CTD with dual temperature and conductivity sensors (Table 8). The Seasoar also carried a Biospherical Instrument QSP-200L 400 - 700 nanometer Irradiance Profiling Sensor, an Optical Plankton Counter and either a Towed Optical Fluorescence Unit or a SeaTech 300m Fluorometer (Table 3).

Raw 24 Hz CTD data from the Seasoar vehicle and GPS position and time data were acquired by an IBM compatible PC, which also set flags to mark the collection of hourly salinity samples from the flowthrough system. The raw data were simultaneously recorded on optical disk by PC and on a Sun Sparc workstation. Flags were also set to indicate missing GPS position data. The PC displayed time series of subsampled temperature (both sensors), conductivity (both sensors) and pressure in real time; it also displayed accumulated temperature data for 6-8 hours as a vertical section (color raster). One-second averages of ship's position, CTD temperature (both sensors), conductivity (both sensors), salinity (both sensor pairs), and pressure were calculated on the Sparc workstation, using the most recent manufacturer's calibration (Table 8). Preliminary salinity estimates for each sensor pair were calculated using a fixed offset between temperature and salinity, and a fixed value, $\alpha = 0.045$, for the amplitude and for the time constant, $\tau = 9$, of the thermal mass of the conductivity cell. Time-series and vertical profile plots of the one-second data were made at the end of each hour. The 1-Hz preliminary data were used to calculate 12-minute or 15-minute average temperature and salinity values in bins extending 2 dbar in the vertical, and these gridded values were used for at-sea analysis to devise sampling strategies for the small-scale surveys.

Seasoar Conductivity Calibration

During all Seasoar tows, salinity samples were collected once per hour from a throughflow system in Wecoma's wetlab. This system pumps water from the seachest at a depth of 5 m in the ship's hull, through a tank containing SBE temperature and conductivity sensors; samples are drawn from a point just beyond this tank. The 120 ml glass sample bottles were rinsed three times before filling, and closed with screw-on plastic caps with conical polyethylene liners. Samples were further sealed by wrapping parafilm around the base of the cap. Samples were analyzed ashore on a Guildline Autosol salinometer, following the end of each cruise; the salinometer was standardized with IAPSO Standard Water at the beginning and end of each batch of about 24 samples. Time series of these hourly salinity samples and time series of preliminary Seasoar data from the 3-7 m depth range (Figure 12, 14) show very similar variations.

For a quantitative comparison between the salinity samples and the Seasoar data, we selected Seasoar values that were both within 7 minutes of the time of the salinity sample and within a depth range of 3.0 to 5.5 m. For each salinity sample, we calculated a bottle conductivity using the measured salinity and the

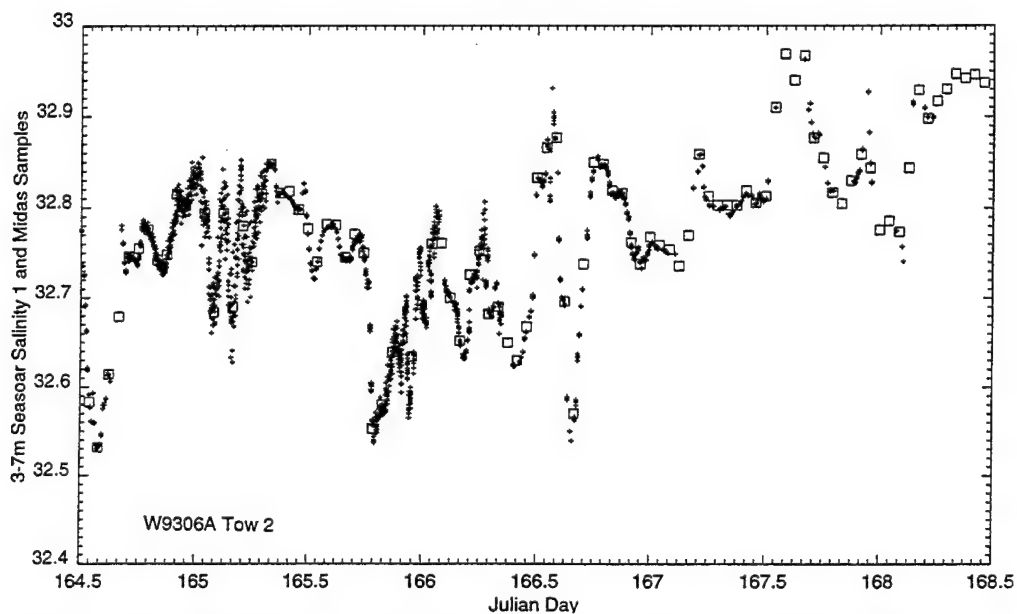
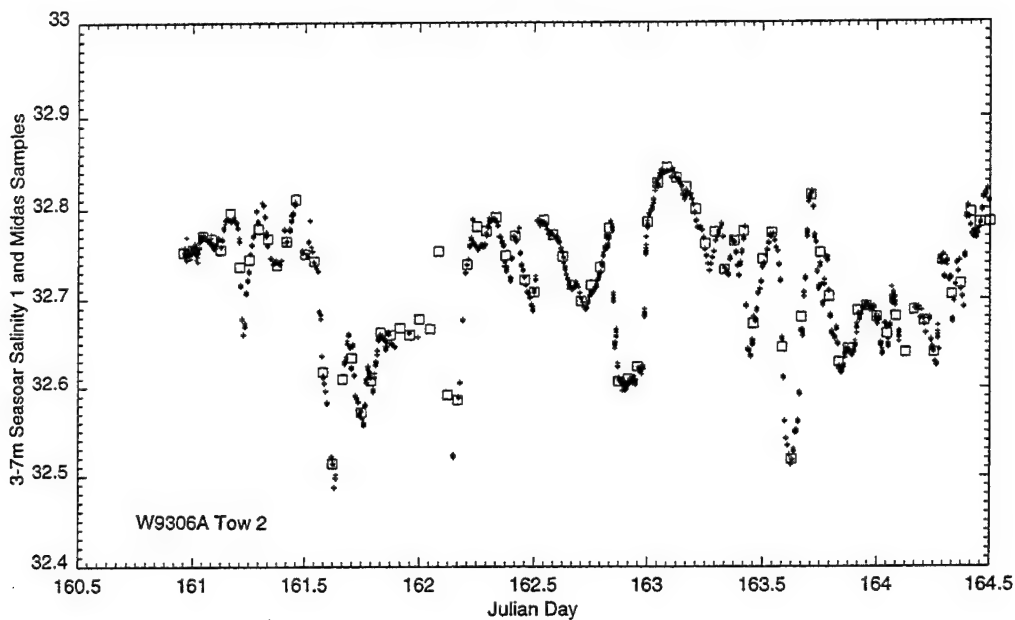
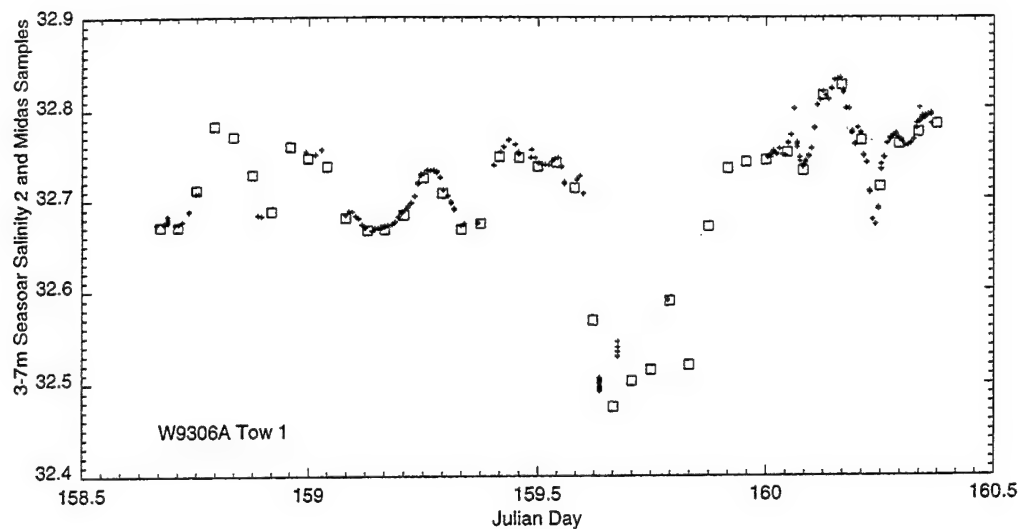


Figure 12(a). Time series of hourly samples from the ship's 5-m intake (squares), and of preliminary estimates of near-surface (3.0-7.99 m) Seasoar salinity (dots) from the preferred sensor pair, for Tows 1 and 2 of W9306A.

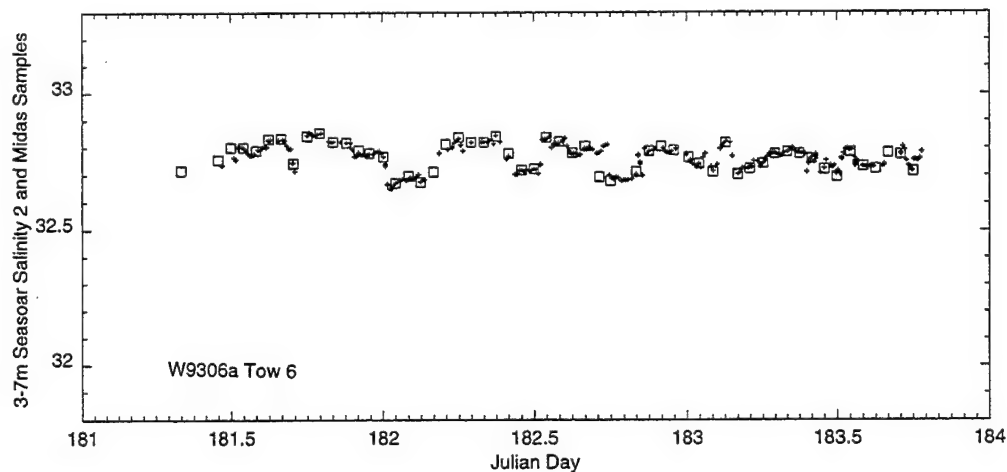
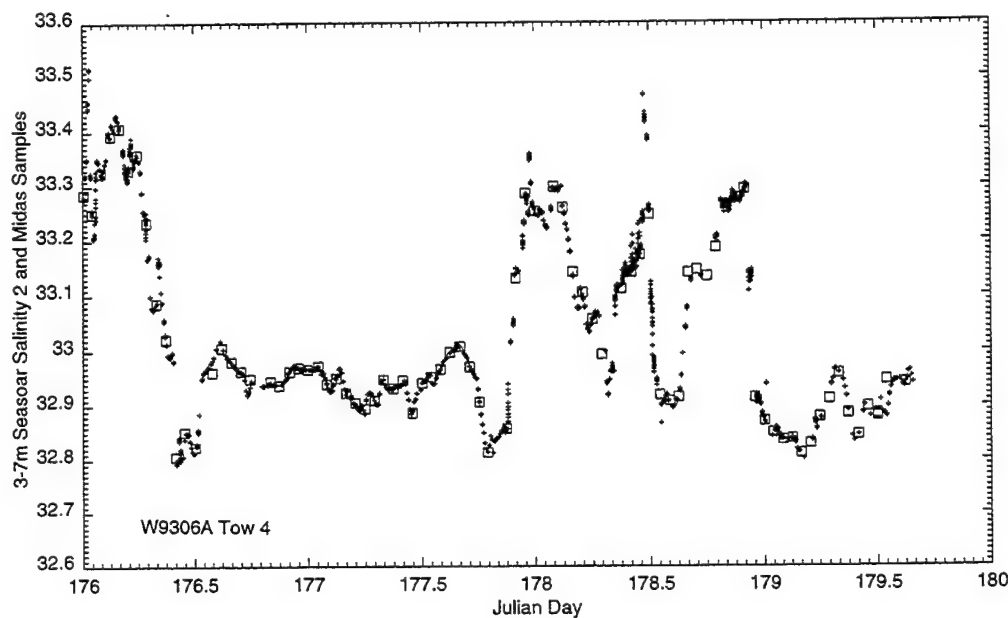
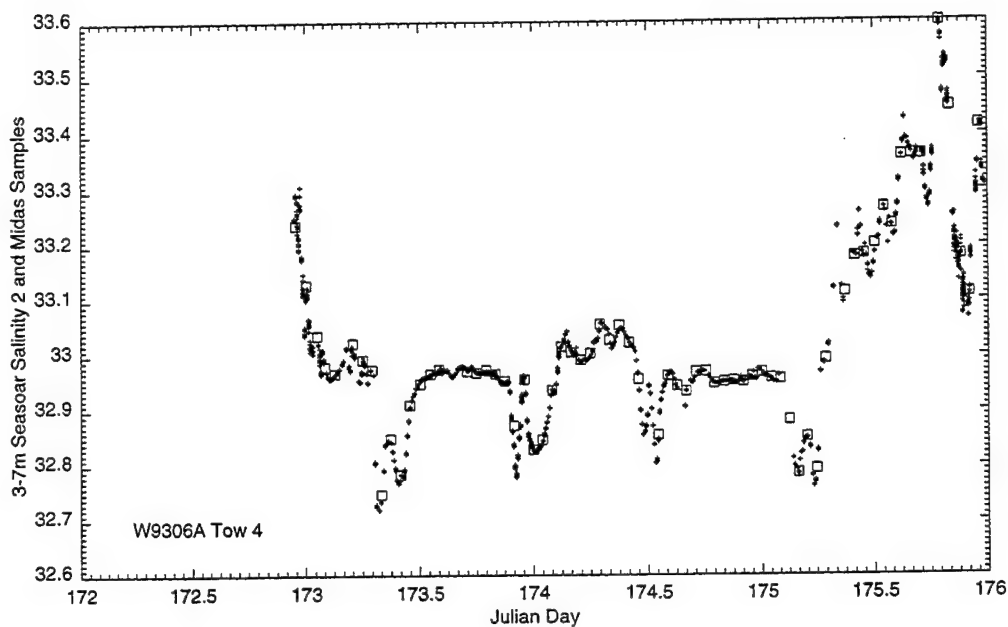


Figure 12(b). Time series of hourly samples from the ship's 5-m intake (squares), and of preliminary estimates of near-surface (3.0-7.99 m) Seasoar salinity (dots) from the preferred sensor pair, for Tows 4 and 6 of W9306A.

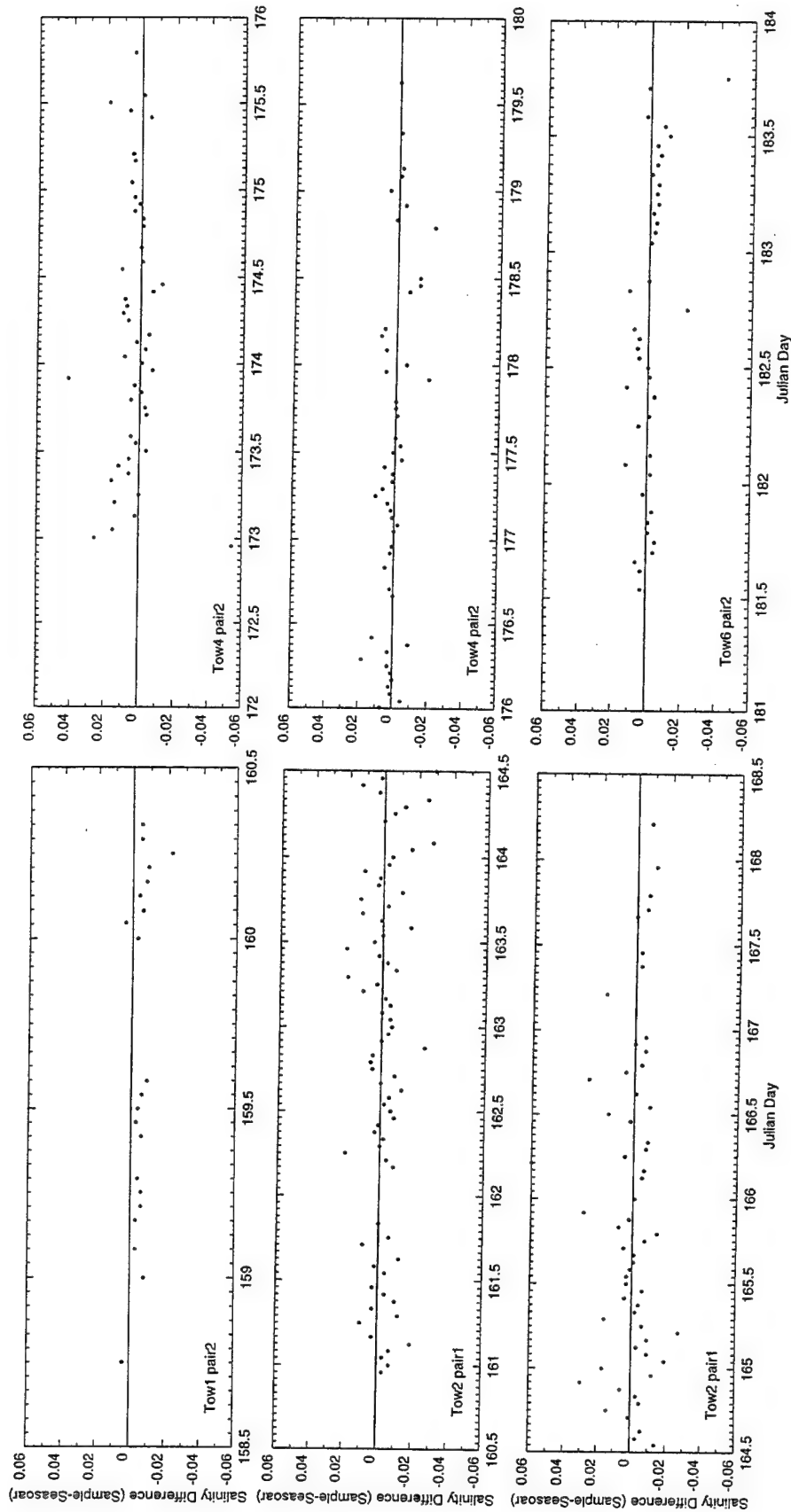


Figure 13. Time series of salinity differences between the 5-m samples and the matching corrected Seasoar data from the preferred sensor pair, for Tows 1, 2, 4 and 6 of W9306A.

temperature from each Seasoar sensor duct, and then compared this sample conductivity to the directly measured conductivity from the same sensor duct; a very few pairs with very large differences were eliminated from the comparison. Assuming, as usual, that the measured conductivity should be corrected by a multiplier alone, we calculated the slope (m) of the zero-intercept regression line between the measured conductivity and the sample conductivity separately for each sensor pair and for each Seasoar tow (Table 11).

For cruise W9306A there was no significant difference in the multiplier for the primary sensor pair between tows 2 and 4 (Table 11), which had large numbers of calibration points, so the same correction factor (k) was used for both tows. The same correction factor (k) was also used for tows 1, 3, 5, 6 and 7. The secondary sensor pair required no correction for tows 2 and 4 (Table 11), so no conductivity correction was applied for any tow of W9306A. For cruise W9308B there was no significant difference in the multiplier for the primary sensor pair between tows 1,2,4 and 5, so the data was pooled and a correction factor (k) was determined for all the tows (Table 11); Sensor pair 2 required no conductivity correction.

These multipliers were applied to the Seasoar conductivity data to calculate corrected Seasoar salinity values. Average values of these differences (Table 11) were within the expected uncertainty (± 0.005 psu) of determining near-surface salinities in this high-gradient region. The time series of the differences (Figures 13, 15) show reasonable agreement between sample and near-surface Seasoar data for the preferred sensor pair of each tow. In general, largest differences occur when the surface layer is stratified, and the standard deviations of the salinity differences (Table 11) reflect sampling errors rather than instrumental noise.

Table 11. Conductivity multipliers (m1 and m2) for primary and secondary sensors, determined separately for each tow from comparison of near-surface Seasoar data with 5-m intake samples, and the correction factors (k1 and k2) adopted for reprocessing the Seasoar conductivity data. Also shown are the average and standard deviations of the salinity differences between the sample and corrected Seasoar values, and the preferred sensor pair.

	Tow	N	m1	m2	k1	k2	Average		Std Dev		Pref. Pair
							S1	S2	S1	S2	
W9306A	1	20	0.99997	0.99989	1.00012	1.00000	-0.005	-0.004	0.003	0.003	2
	2	131	1.00010	0.99999	1.00012	1.00000	-0.001	0.000	0.010	0.010	1
	3	0	--	--	1.00012	1.00000	--	--	--	--	2
	4	94	1.00012	1.00004	1.00012	1.00000	0.000	0.001	0.006	0.006	1
	5	3	--	--	1.00012	1.00000	--	--	--	--	1
	6	34/37	0.99972	0.99998	1.00012	1.00000	0.002	0.000	0.010	0.010	2
	7	5	--	--	1.00012	1.00000	--	--	--	--	2
W9308B	1	24	1.00017	1.00001	1.00018	1.00000	-0.001	0.000	0.008	0.008	1
	2	74	1.00020	1.00005	1.00018	1.00000	0.001	0.002	0.005	0.005	1
	3	1	--	--	1.00018	1.00000	--	--	--	--	2
	4	88	1.00015	1.00003	1.00018	1.00000	-0.001	0.001	0.006	0.007	1
	5	105	1.00020	1.00007	1.00018	1.00000	0.000	0.000	0.006	0.006	1
	1,2,4,5	291	1.00018	1.00005	1.00018	1.00000	0.000	0.000	0.006	0.006	

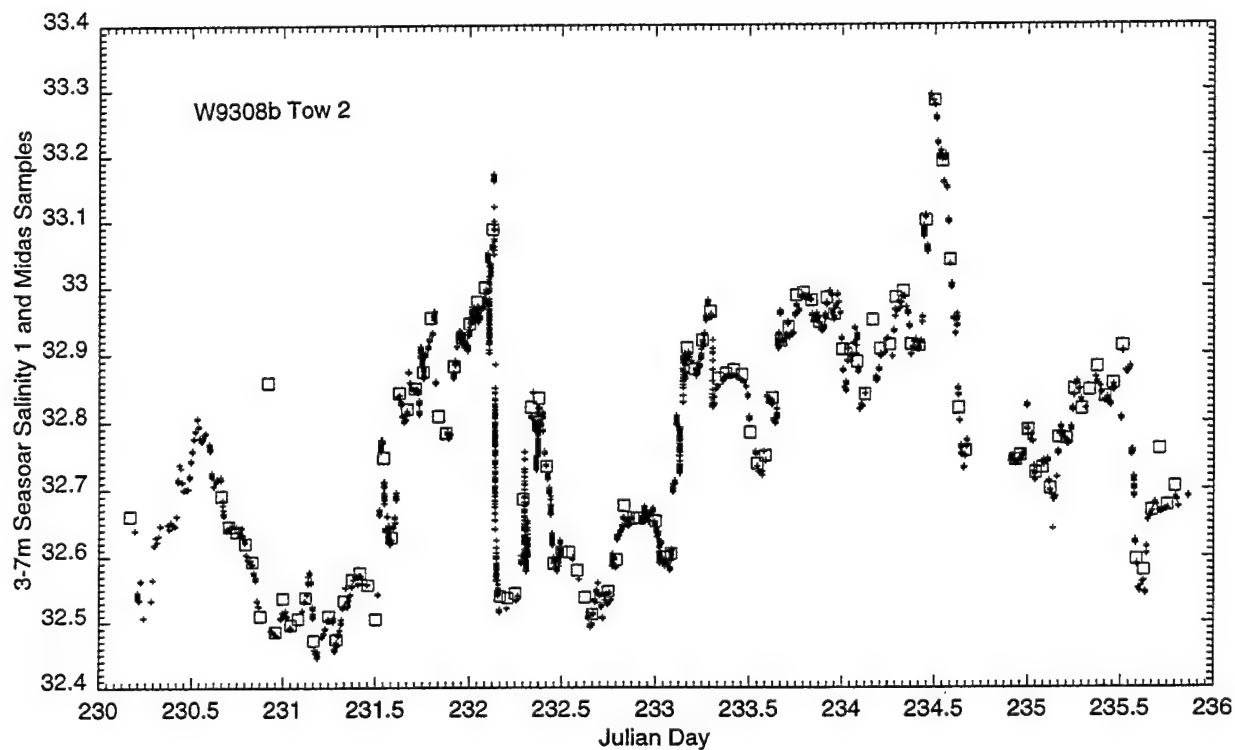
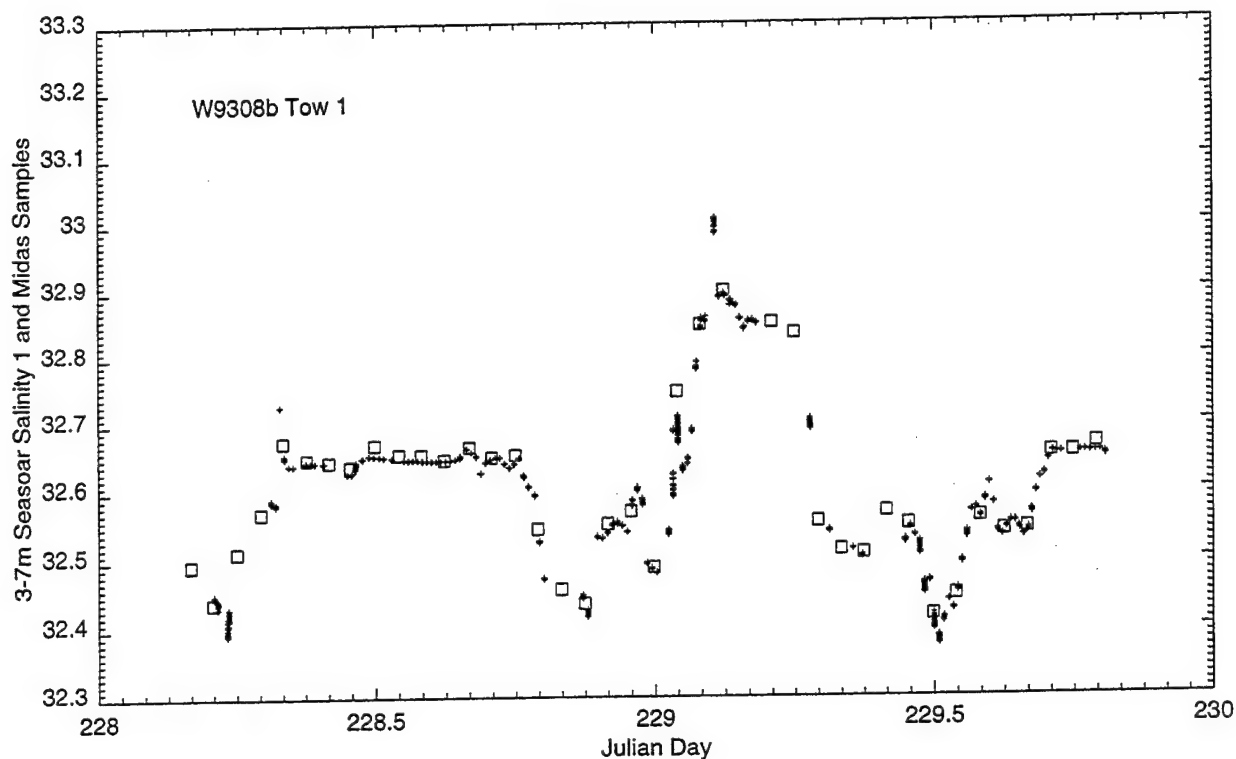


Figure 14(a). Time series of hourly samples from the ship's 5-m intake (squares), and of preliminary estimates of near-surface (3.0-7.99 m) Seasoar salinity (dots) from the preferred sensor pair, for Tows 1 and 2 of W9308B.

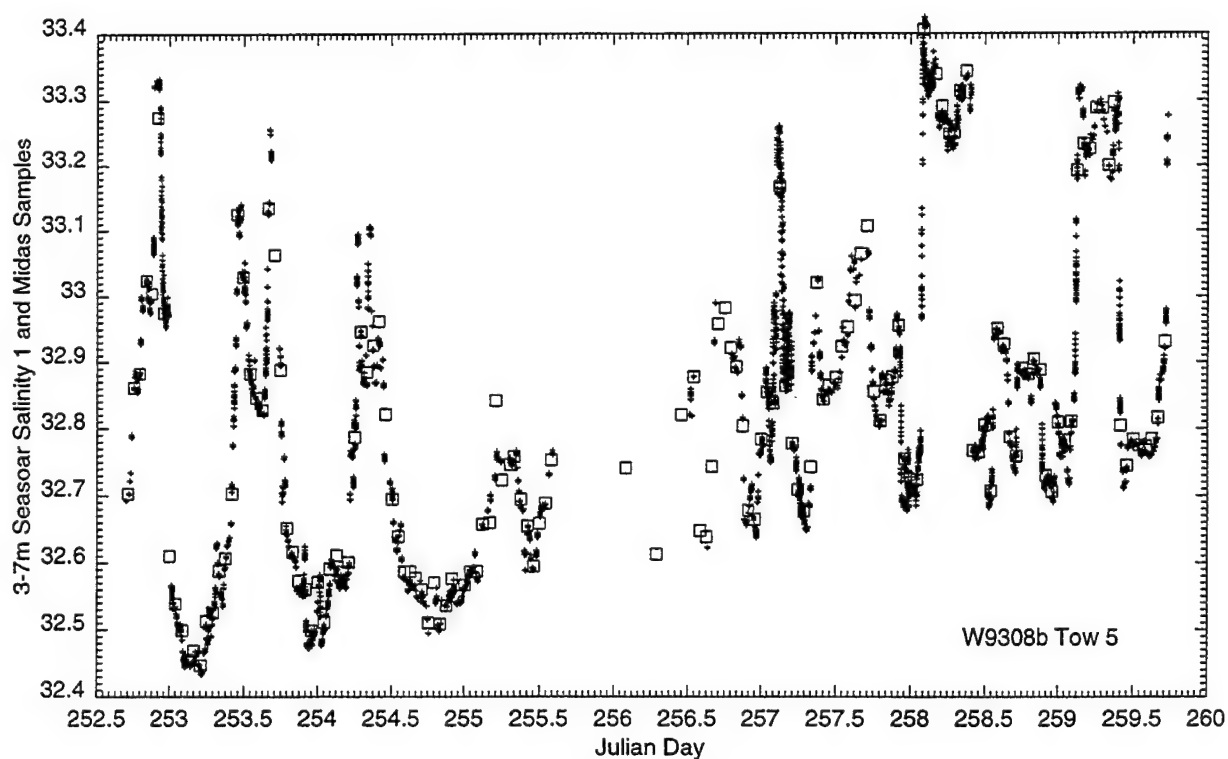
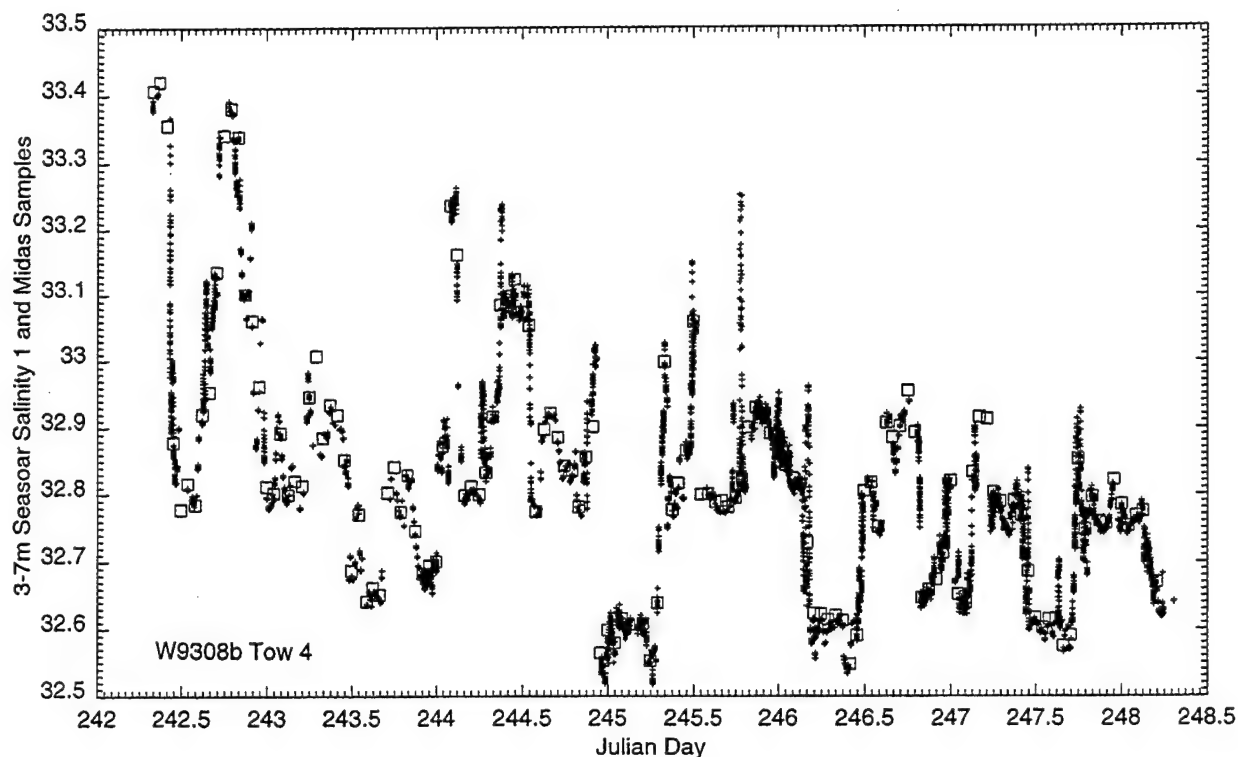


Figure 14(b). Time series of hourly samples from the ship's 5-m intake (squares), and of preliminary estimates of near-surface (3.0-7.99 m) Seasoar salinity (dots) from the preferred sensor pair, for Tows 4 and 5 of W9308B.

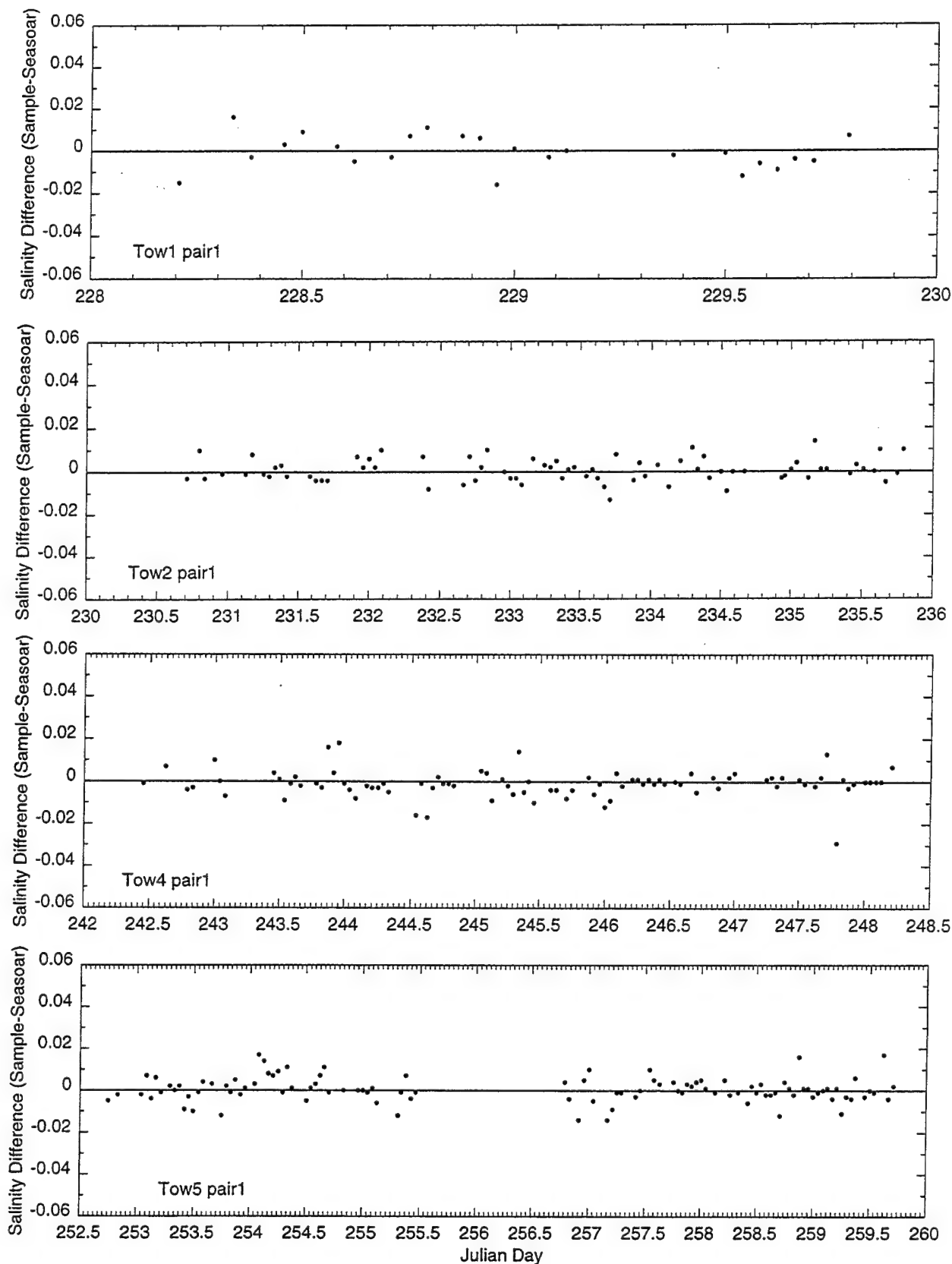


Figure 15. Time series of salinity differences between the 5-m samples and the matching corrected Seasonar data from the preferred sensor pair, for Tows 1, 2, 4 and 5 of W9308B.

Post-processing of Seasoar Data

Salinity data derived from SeaBird ducted temperature and conductivity sensors are subject to errors from two principal sources (Larson, 1992): (1) poor alignment of the 24 Hz temperature and conductivity data, and (2) poor compensation for the transfer of heat between the mantle of the conductivity cell and the water flowing through it. These sources of error are minimized in a normal SeaBird CTD, by pumping the water through the ducted pair at a fixed rate. Even though we used the standard SeaBird sensor duct with high-speed SeaBird pumps, the flow rate through the sensors mounted inside the Seasoar vehicle was apparently not constant, presumably because of dynamic pressure gradients along the skin of the Seasoar vehicle; these gradients seem to vary with vehicle attitude (ascending vs. descending), and with the relative currents encountered by the vehicle (Huyer et al., 1993).

An additional source of potential error is the possibility of a mismatch of the effective time constants of the temperature and conductivity measurements (Larson, 1992). The SeaBird sensors are designed to have matching time-constants, but the effective time constant of the thermistor may lengthen significantly through biological fouling. Such a time-constant mismatch would further modify the effective lag between the measured temperature and conductivity signals.

Seasoar data were processed using the same general procedures outlined by Huyer et al. (1993), i. e., by first determining the lags between 24-Hz temperature and conductivity by cross-correlation for consecutive data segments with specified depth ranges, and using the lag calculated for each segment to offset the 24-Hz conductivity data relative to the temperature data within that segment; by applying appropriate calibration equations to the conductivity data; by applying Lueck's (1990) correction for the thermal mass of the conductivity cell, with the value of the amplitude parameter related to the T-C offset for each data segment; and block averaging the data to 4-Hz values, and finally by averaging the 4-Hz values from each ascending or descending profile into 2 dbar bins.

Configuration files for reprocessing the raw 24-Hz Seasoar data contained the manufacturer's pre-cruise calibration constants for the pressure, temperature and conductivity sensors, modified by the appropriate conductivity multiplier.

Lagged correlations between first-differenced temperature and conductivity were calculated for each sensor pair, separately for ascending and descending profiles, and separately for three depth ranges: 50 to 120 dbar, 120 to 180 dbar, and 180 to 240 dbar, provided the segment contains at least 180 scans. The fractional value of the lag at maximum correlation was determined by fitting a parabola to the cross-correlation values. The time-series of lags for one of the sensor pairs during some tows (pair 1 during tows 2 and 4 of W9306A, and pair 2 during Tows 2, 4 and 5 of W9308A) showed erratic behavior, and even lags less than zero (i.e., C leading T) that we interpreted as evidence of fouling. Time

series for the preferred sensor pair of each tow are shown in Appendix A. Outlying lag values (obtained occasionally for data segments lasting <10 seconds) were not used in processing the data.

The edited values of the alignment offset were applied sequentially in reprocessing the 24-Hz T/C data. To reprocess data from depths shallower than 50 m, we used the value determined from the associated (ascending or descending) 50 to 120 dbar layer; for data deeper than 240 m, we used the value determined from the associated (ascending or descending) 180 to 240 dbar layer. Short segments with unreasonably large lags were processed with the lag obtained for the succeeding data segment.

To correct the 24-Hz conductivity data for the thermal mass of the conductivity cell, we used the standard recursive algorithm provided by SeaBird:

$$\Delta C_n = -bC_{n-1} + a(dC/dT)(T_n - T_{n-1})$$

$$a = 2\alpha / (2 + \beta\Delta t)$$

$$b = 1 - 2a/\alpha$$

$$\beta = 1/\tau$$

$$dC/dT = 0.1(1 + 0.006(T_n - 20)),$$

where ΔC_n is the conductivity correction at time n , C_{n-1} is the conductivity (in $S\ m^{-1}$) at the preceding time, T_n and T_{n-1} are the temperatures (in degrees Celsius) at times n and $n-1$, and Δt is the time between scans (1/24 sec). Use of constant values for α and τ works well with conventional CTD/rosette casts, but it is not sufficient for a Seasoar towed at $4\ m\ s^{-1}$ with climb and dive rates that sometimes exceed $3\ m\ s^{-1}$ (Huyer et al., 1993). Following the procedure outlined by Huyer et al. (1993), we used a constant value for the time constant (τ) and variable values for the amplitude (α) of the thermal anomaly. The value of $\tau = 8$ seconds was chosen by examining some data segments (from both cruises) with exceptionally steep gradients at the bottom of the surface mixed layer, and minimizing differences between ascending and descending salinity data near the top of the thermocline.

Since Lueck (1990) had suggested that α varies inversely with flow rate, and flow rate is inversely related to the T-C lag, we assume that the thermal anomaly amplitude varies directly with the lag whenever it is longer than the 1.75 scans that corresponds to the nominal flow rate through the standard T-C sensor duct:

$$\alpha = 0.03 \quad \text{if lag} \leq 1.75$$

$$\alpha = 0.03 + 0.03((\text{lag} - 1.75)/2.75) \quad \text{if lag} > 1.75$$

for both primary or secondary sensors. Note that 1.75 scans were not removed from the data for the primary sensors by our deck-unit as in previous cruises.

The corrected and realigned 24 Hz temperature and conductivity data were used to calculate 24-Hz salinity, and these were averaged to yield 4-Hz averages stored in hourly files. Reprocessed data from both sensor pairs were plotted to verify our choice of the preferred pair for each Seasoar tow. The primary sensor pair (starboard side) was preferred for Tows 2, 4 and 5 of W9306A and Tows 1,2,4

and 5 of W9308B. The secondary pair was preferred for Tows 1, 3, 6 and 7 of W9306A and Tow 3 of W9308B.

The final post-processing step involved correcting the PC-time of the hourly 4-Hz averaged files, to enable proper merging of the TOFU's fluorescence data with the Seasoar CTD data. The PC-timestamp in the 24-Hz data stream had two sources of error: the first was due to PC-clock drift and not setting the PC-clock to UTC prior to each tow (largest error in EBC was about 5 minutes); the second was the erratic PC-time given for "10-second" intervals. Usually the PC recorded about ten seconds while acquiring 240 CTD scans from the deck unit internal buffer, but sometimes it would take 11, 12, or 13 seconds to acquire those scans, and then the next 240 scans would take only 9, 8, or 7 seconds to acquire. The source of this error appears to be the acquisition system, which can take up to 3 seconds doing tasks other than acquiring CTD data, and then get the next 240 scans faster since they have been stored in buffers and the PC is no longer busy. This erratic PC-time had to be corrected before the 4-Hz Seasoar data could be properly merged with TOFU data.

The PC time was first corrected by adjusting the tow start time to the correct UTC time if necessary (Table 11). The GPS time, merged with the CTD data stream, gave the correct time although the PC acquisition of the GPS time had a median delay of 8 seconds that had to be accounted for: $UTC = GPS \text{ time} + 8 \text{ seconds}$. The data stream was then assumed to have 240 scans every 10 seconds. Comparisons of the processed PC time with the GPS time at the end of each EBC tow show the results of these corrections (Table 12).

Table 12. Corrections added to PC time at the start of each tow and the median PC/GPS time differences (PC time-(GPS time + 8 sec.)) in the last hour of each tow.

	Tow	Correction Added (seconds)	Median Difference (seconds)	Tow Duration (hours)
W9306A	1	0	-1	43
	2	0	-4	187
	3	-2	-1	19
	4	27	-1	162
	5	39	-3	5
	6	42	-4	62
	7	46	-1	9
W9308B	1	138	-3	42
	2	0	-6	137
	3	10	0	66
	4	322	-2	145
	5	0	-2	171

Data Presentation

Successive hourly files of the reprocessed 4-Hz average data were joined and clipped to construct one or two data file for each section of the Small Scale Surveys and Large Scale Surveys for each cruise (Tables 4 and 5). Zonal sections of the Large Scale surveys were split into onshore and offshore sections at 126° W. The 4-Hz data from each ascending and descending profile were vertically sorted into 2-dbar bins (centered at odd integral values) and averaged together. Final 2-dbar processed data files contain unfiltered GPS latitude and longitude; pressure; temperature, salinity and sigma-t from the preferred sensor pair; date and time (both in decimal year-day and integer year, month, day, hour, minute, second); an integer representing flags (thousands digit of 1 indicates collection of a water sample from 5-m intake, hundreds digit of 1 indicates beginning of new ascending or descending profile, tens digit of 1 indicates missing GPS data filled by linear interpolation, and ones digit indicates port (1) or starboard (0) intake for the T/C sensor pair); voltage from the SeaTec fluorometer (W9306A, tows 1 - 3 only); voltage from the PAR sensor; and the number of 4Hz values in the 2-dbar average.

In the body of this data report, we summarize the results of the conventional CTD casts and the thermohaline data from the Seasoar tows. For the CTD stations, we provide plots of the vertical profiles of temperature, salinity, sigma-t and fluorescence voltage, and listings of observed and calculated variables at standard pressures.

For the two Large- and three Small-Scale Seasoar Surveys, we present maps at selected depths, summary T-S diagrams, and vertical sections. The maps show geopotential anomaly (dynamic topography) in J/kg (m^2s^{-2}) at 15, 25, 49, 75, 99, 149 dbar (all relative to 200 dbar) for both cruises, and at 199 dbar (relative to 249 and 299 dbar) for W9306A. Maps of temperature, salinity and sigma-t are shown for the same depths.

Summary T-S diagrams are shown for each of the long zonal sections of both Large-Scale Surveys and for each of the Small-Scale Surveys.

Vertical distributions of temperature, salinity and sigma-t are shown for the principal sections of the two Large-Scale Surveys (i.e. the zonal sections, Figures 1, 2) and three Small-Scale Surveys (Figure 3, 4).

CTD/Seasoar Comparison

T-S diagrams for the beginning and end of each Seasoar Tow are shown in Appendix B. Each diagram shows the T-S curve from both the conventional CTD cast (solid) and the preferred Seasoar sensors (dashed line) during Seasoar deployment or recovery. Seasoar deployment profiles are generally noisier than either the CTD profiles or Seasoar recovery profiles, probably because the Seasoar vehicle is tilted nose-upward during both deployment and recovery:

observations during deployment are sometimes within the turbulent wake of the descending vehicle. The largest differences between the CTD and Seasoar data seem to reflect the high amplitude of small-scale T-S variations in this region rather than instrumental error.

Acknowledgments

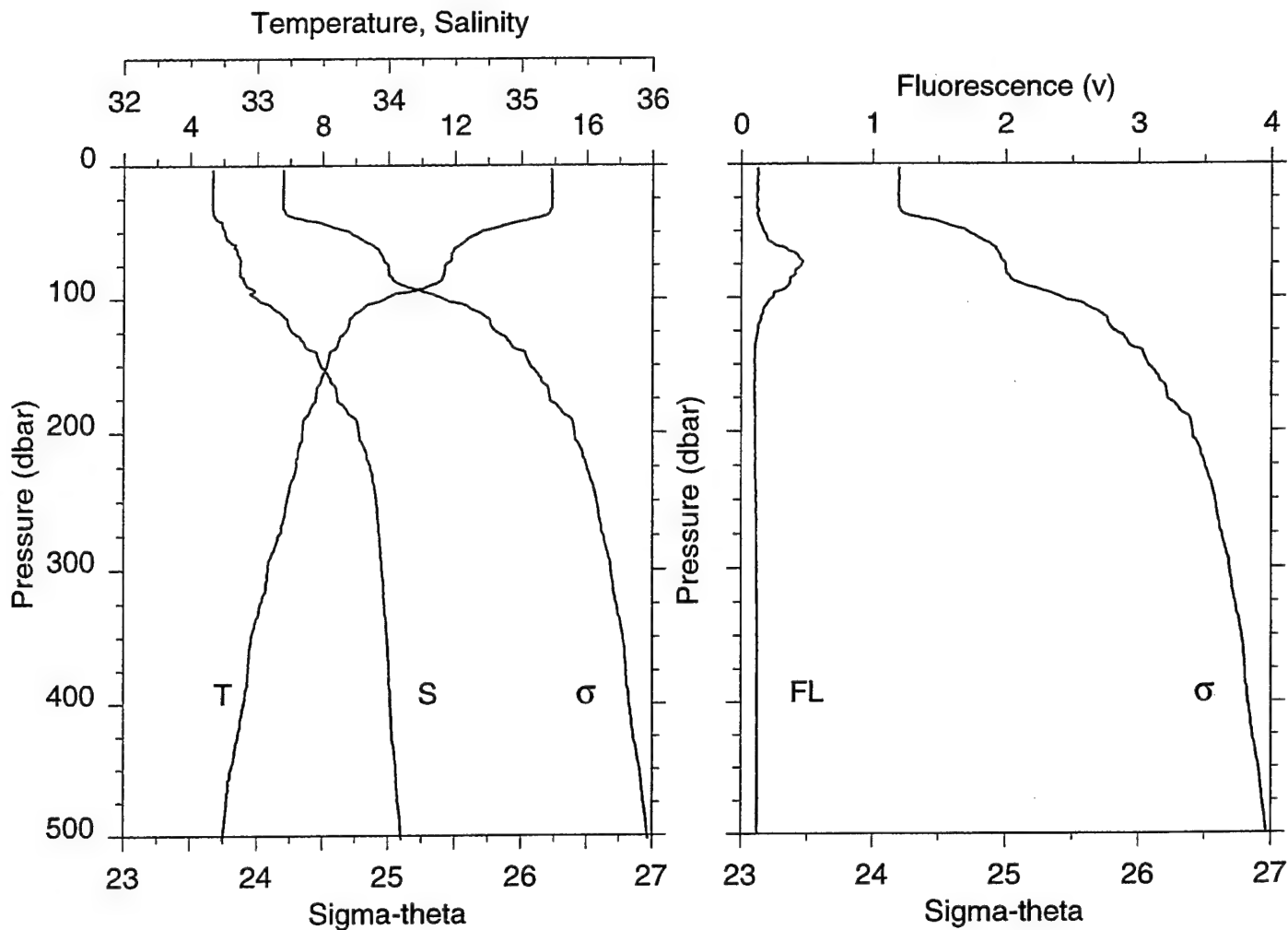
We are deeply indebted to Wecoma's Marine Technicians: Marc Willis, Mike Hill, Tim Holt and Brian Wendler; this work would not have been possible without their skill and dedication. We are also grateful to the Wecoma's officers and crew for superb service under difficult weather conditions. Many of our EBC colleagues participated in collecting the data presented here. Our EBC Survey cruises were supported by the Office of Naval Research through Grant N0014-92J1348.

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CTD DATA

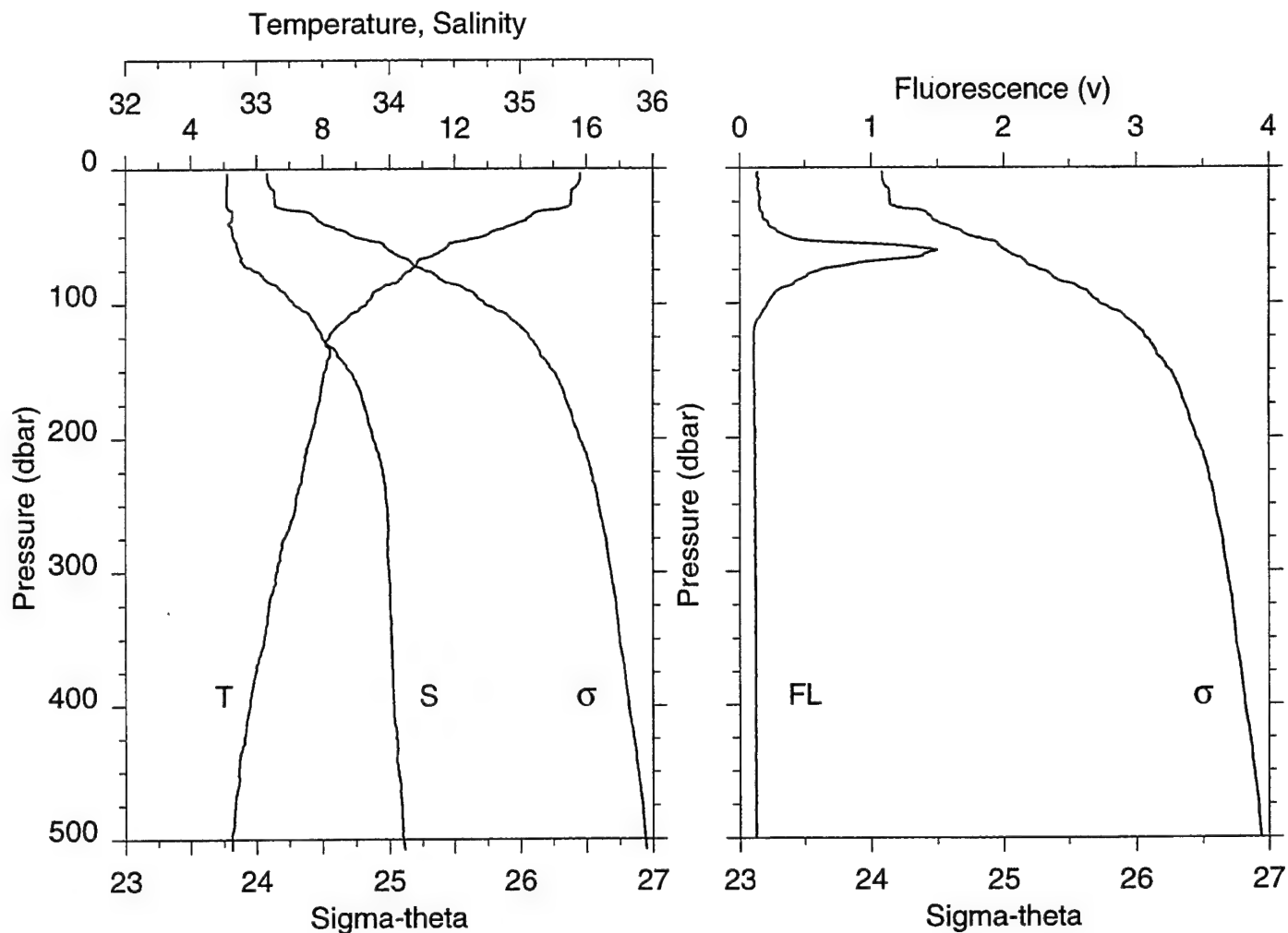
For each station, we present plots of the vertical profiles of temperature, salinity, sigma-t and fluorescence voltage, and a listing of the observed and derived variables at standard pressures. Header data includes the CTD Station Number, Latitude (degrees and minutes North), Longitude (degrees and minutes West), Date and Time (UTC), and Bottom Depth (in meters).



STA NO 1 LAT: 39 31.6 N LONG: 128 2.3 W
07 JUN 1993 1311 GMT DEPTH 3750

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	14.901	32.669	14.900	24.198	371.3	0.111	0.12
10	14.907	32.670	14.906	24.197	371.6	0.371	0.12
20	14.915	32.668	14.912	24.195	372.1	0.743	0.12
30	14.917	32.668	14.912	24.195	372.4	1.115	0.12
40	14.293	32.696	14.288	24.348	358.0	1.485	0.13
50	12.755	32.760	12.749	24.708	323.9	1.824	0.17
60	12.125	32.837	12.117	24.888	306.9	2.140	0.25
70	11.891	32.875	11.882	24.961	300.1	2.443	0.43
80	11.666	32.873	11.656	25.002	296.5	2.740	0.41
90	11.216	32.919	11.205	25.119	285.5	3.033	0.36
100	9.889	33.005	9.878	25.415	257.3	3.304	0.24
110	9.043	33.171	9.031	25.681	232.1	3.548	0.16
120	8.796	33.237	8.783	25.772	223.6	3.774	0.13
130	8.506	33.333	8.493	25.892	212.3	3.993	0.12
140	8.216	33.451	8.202	26.028	199.5	4.201	0.10
150	8.133	33.486	8.118	26.068	195.9	4.399	0.10
175	7.789	33.611	7.772	26.217	182.1	4.867	0.10
200	7.377	33.777	7.358	26.406	164.4	5.295	0.11
225	7.190	33.865	7.169	26.501	155.7	5.695	0.11
250	6.899	33.910	6.876	26.577	148.8	6.075	0.11
275	6.646	33.933	6.621	26.629	144.1	6.442	0.12
300	6.328	33.952	6.302	26.687	138.8	6.795	0.12
350	5.826	33.991	5.796	26.781	130.2	7.470	0.12
400	5.612	34.017	5.579	26.828	126.2	8.111	0.12
450	5.218	34.059	5.182	26.908	118.8	8.725	0.12
500	4.998	34.097	4.959	26.964	113.9	9.307	0.12
503	4.975	34.100	4.935	26.969	113.5	9.341	0.12

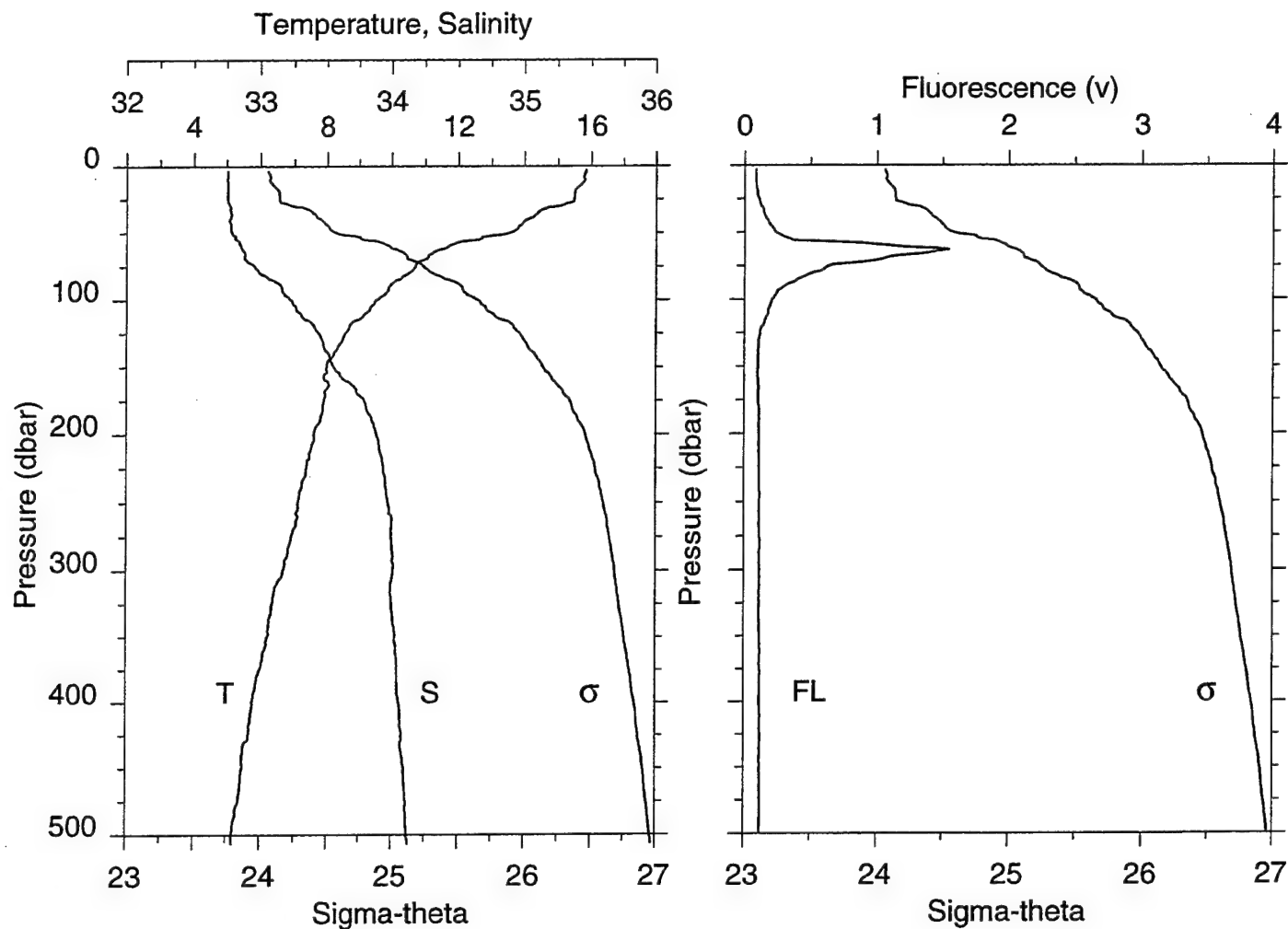
data from secondary t,c sensors



STANO 2 LAT: 39 14.4 N LONG: 126 50.1 W
09 JUN 1993 1121 GMT DEPTH

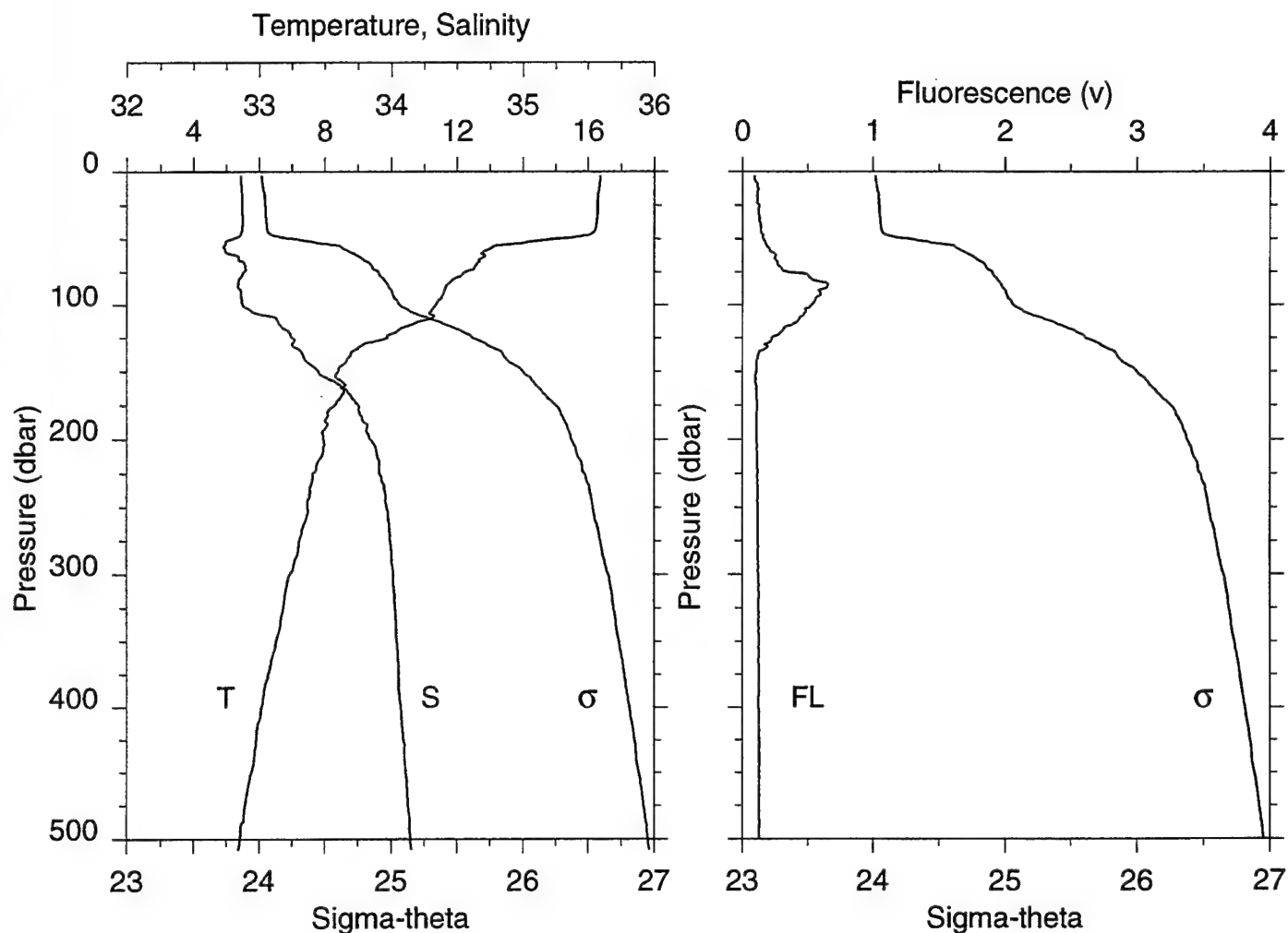
P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.811	32.777	15.810	24.082	382.3	0.115	0.13
10	15.774	32.777	15.773	24.090	381.8	0.382	0.14
20	15.547	32.772	15.544	24.137	377.6	0.762	0.15
30	15.148	32.793	15.143	24.241	368.0	1.138	0.15
40	13.892	32.787	13.886	24.502	343.3	1.488	0.22
50	12.824	32.821	12.817	24.742	320.6	1.819	0.36
60	11.630	32.860	11.623	24.998	296.4	2.124	1.45
70	10.826	32.899	10.817	25.173	279.9	2.412	0.92
80	10.374	33.051	10.365	25.369	261.4	2.682	0.51
90	9.586	33.197	9.576	25.614	238.1	2.932	0.30
100	9.307	33.283	9.296	25.727	227.6	3.164	0.21
110	8.741	33.414	8.729	25.919	209.4	3.382	0.15
120	8.316	33.475	8.304	26.031	198.9	3.586	0.11
130	8.098	33.531	8.085	26.108	191.7	3.781	0.11
140	8.192	33.627	8.178	26.170	186.1	3.969	0.11
150	8.063	33.703	8.048	26.249	178.7	4.152	0.11
175	7.874	33.810	7.856	26.360	168.5	4.584	0.11
200	7.627	33.876	7.607	26.448	160.5	4.995	0.12
225	7.399	33.948	7.377	26.538	152.3	5.384	0.12
250	7.190	33.978	7.167	26.591	147.7	5.759	0.12
275	6.836	33.984	6.811	26.645	142.8	6.122	0.12
300	6.607	33.995	6.580	26.684	139.3	6.475	0.12
350	6.229	34.014	6.199	26.748	133.6	7.156	0.12
400	5.797	34.031	5.763	26.817	127.4	7.807	0.12
450	5.462	34.070	5.425	26.888	121.0	8.427	0.12
500	5.250	34.103	5.209	26.940	116.5	9.020	0.12
508	5.257	34.117	5.216	26.950	115.7	9.113	0.12

data from secondary t,c sensors



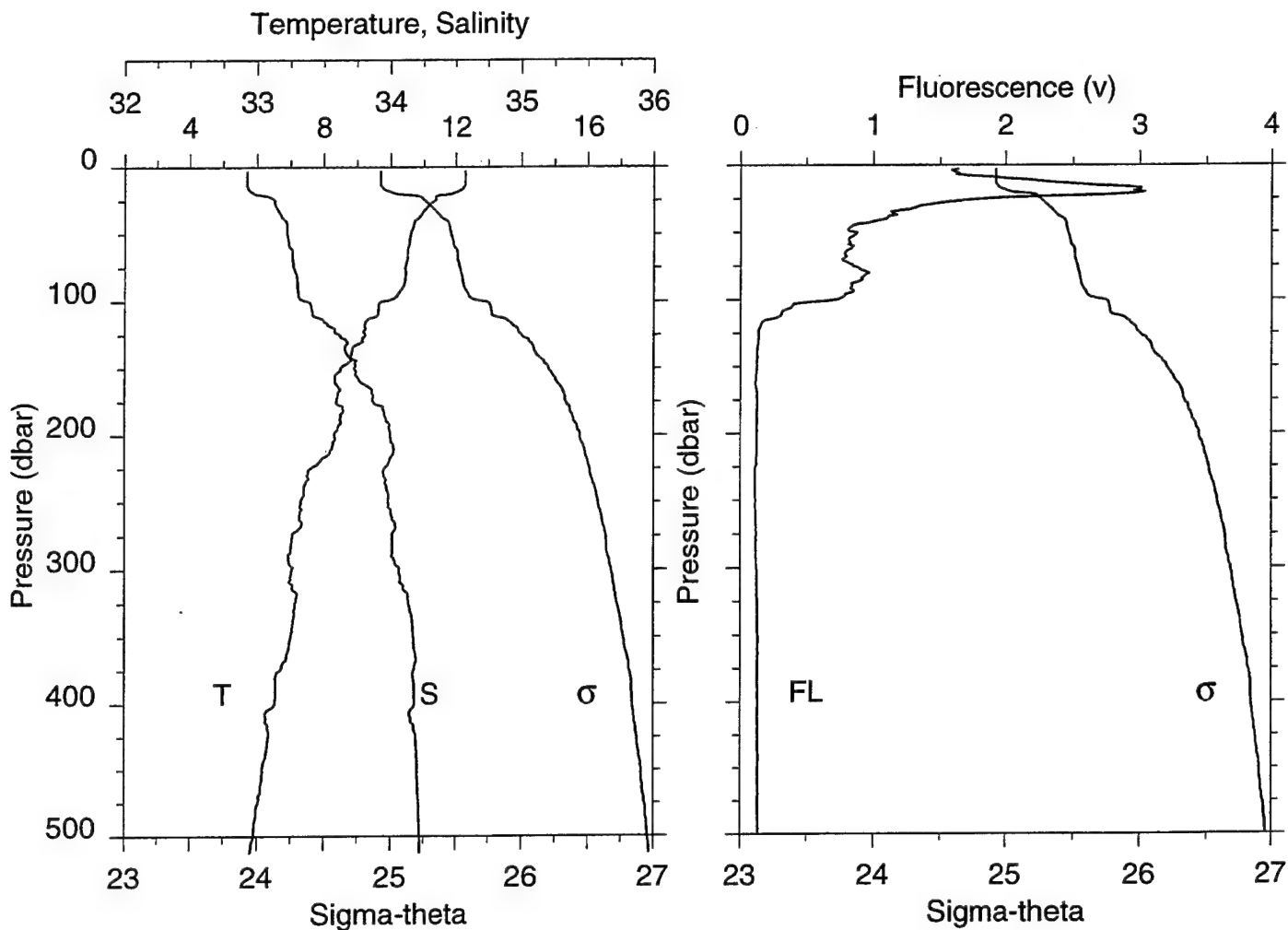
STA NO 3 LAT: 39 14.9 N LONG: 126 53.5 W
09 JUN 1993 2036 GMT DEPTH 4310

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	15.842	32.756	15.841	24.058	384.6	0.115	0.09
10	15.803	32.755	15.801	24.067	384.0	0.384	0.09
20	15.501	32.756	15.498	24.135	377.8	0.765	0.10
30	15.068	32.775	15.064	24.244	367.7	1.141	0.12
40	14.071	32.769	14.065	24.451	348.2	1.495	0.17
50	13.529	32.791	13.522	24.579	336.2	1.838	0.23
60	11.696	32.858	11.688	24.984	297.7	2.152	1.10
70	10.943	32.896	10.935	25.149	282.2	2.441	1.04
80	10.484	33.002	10.475	25.312	266.8	2.715	0.52
90	9.913	33.155	9.903	25.528	246.4	2.970	0.31
100	9.514	33.229	9.503	25.652	234.8	3.212	0.21
110	9.185	33.297	9.173	25.758	224.9	3.443	0.18
120	8.689	33.402	8.677	25.917	209.8	3.660	0.14
130	8.468	33.461	8.454	25.998	202.2	3.866	0.11
140	8.210	33.510	8.196	26.075	195.1	4.064	0.11
150	7.983	33.552	7.968	26.142	188.8	4.256	0.10
175	7.901	33.790	7.884	26.341	170.4	4.705	0.11
200	7.606	33.885	7.587	26.459	159.5	5.118	0.11
225	7.373	33.939	7.352	26.535	152.7	5.508	0.12
250	7.120	33.975	7.097	26.598	146.9	5.882	0.12
275	6.923	33.999	6.898	26.644	142.9	6.244	0.12
300	6.685	34.012	6.657	26.687	139.0	6.596	0.12
350	6.216	34.026	6.186	26.760	132.5	7.276	0.12
400	5.789	34.060	5.755	26.841	125.2	7.920	0.12
450	5.490	34.097	5.453	26.907	119.3	8.532	0.12
500	5.179	34.118	5.139	26.960	114.5	9.117	0.12
507	5.181	34.129	5.140	26.969	113.8	9.197	0.12



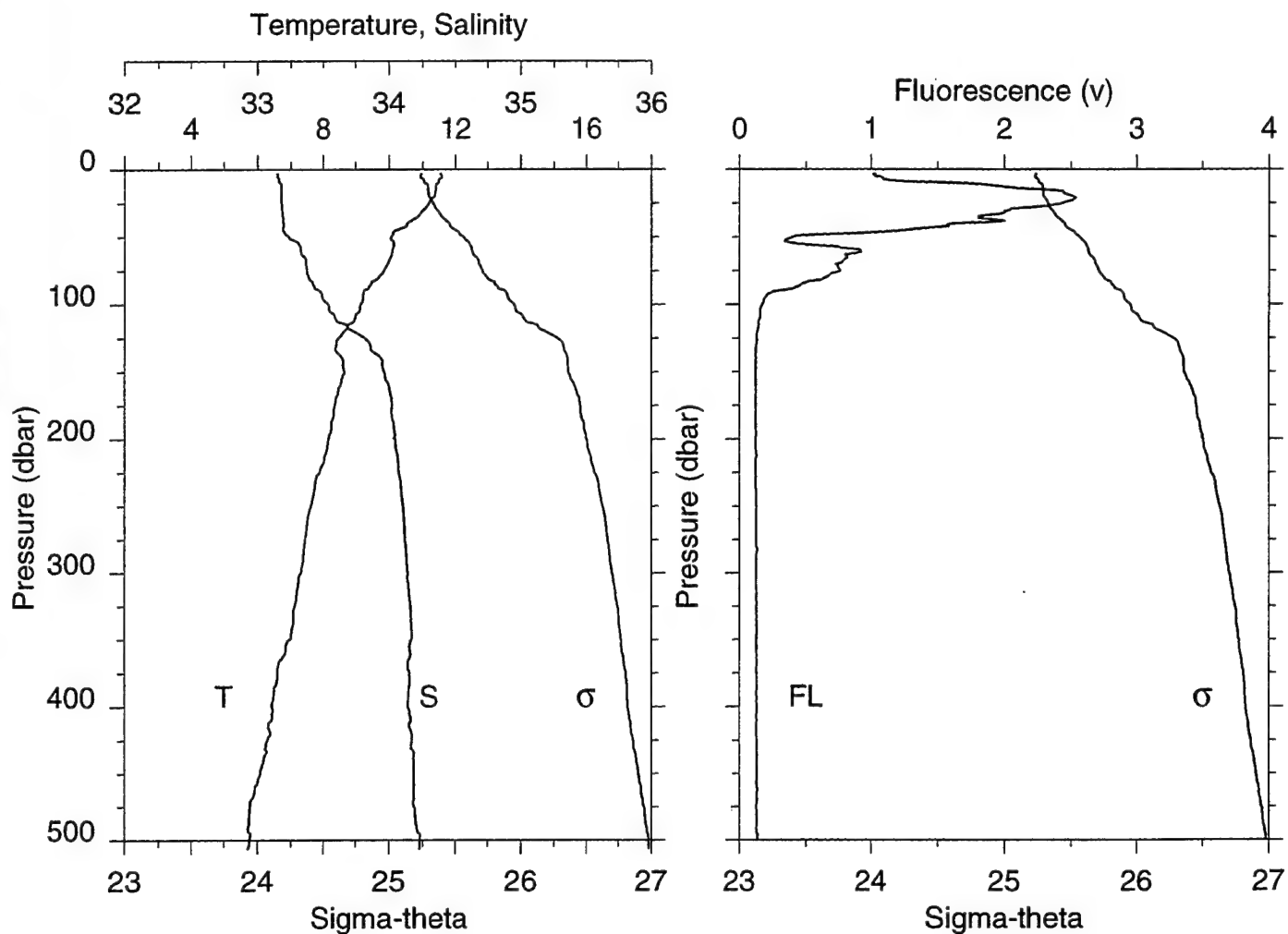
STANO 4 LAT: 37 32.8 N LONG: 126 1.2 W
18 JUN 1993 2200 GMT DEPTH 4360

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	16.381	32.861	16.381	24.017	388.5	0.117	0.09
10	16.356	32.864	16.355	24.025	387.9	0.388	0.11
20	16.305	32.869	16.302	24.041	386.7	0.775	0.11
30	16.289	32.872	16.284	24.048	386.4	1.162	0.12
40	16.251	32.873	16.245	24.057	385.8	1.548	0.14
50	14.910	32.790	14.903	24.290	363.8	1.930	0.16
60	12.776	32.748	12.768	24.695	325.4	2.270	0.22
70	12.557	32.896	12.548	24.852	310.7	2.587	0.27
80	11.906	32.851	11.895	24.940	302.4	2.894	0.53
90	11.599	32.862	11.588	25.005	296.4	3.193	0.59
100	11.344	32.877	11.331	25.064	291.0	3.487	0.53
110	11.209	33.131	11.195	25.286	270.1	3.770	0.43
120	10.169	33.224	10.155	25.539	246.0	4.027	0.30
130	9.156	33.251	9.143	25.726	228.2	4.264	0.17
140	8.705	33.343	8.691	25.869	214.7	4.484	0.12
150	8.409	33.453	8.394	26.001	202.3	4.693	0.10
175	8.309	33.754	8.291	26.253	178.9	5.169	0.11
200	7.956	33.842	7.937	26.374	167.7	5.600	0.11
225	7.634	33.909	7.612	26.474	158.5	6.007	0.11
250	7.477	33.963	7.453	26.539	152.7	6.395	0.12
275	7.228	33.991	7.202	26.596	147.6	6.770	0.12
300	6.939	34.014	6.911	26.654	142.3	7.134	0.12
350	6.510	34.043	6.478	26.735	135.1	7.828	0.12
400	6.080	34.071	6.045	26.813	128.1	8.486	0.12
450	5.768	34.109	5.730	26.882	121.9	9.110	0.12
500	5.429	34.145	5.388	26.952	115.6	9.702	0.13
508	5.371	34.151	5.329	26.964	114.6	9.795	0.12



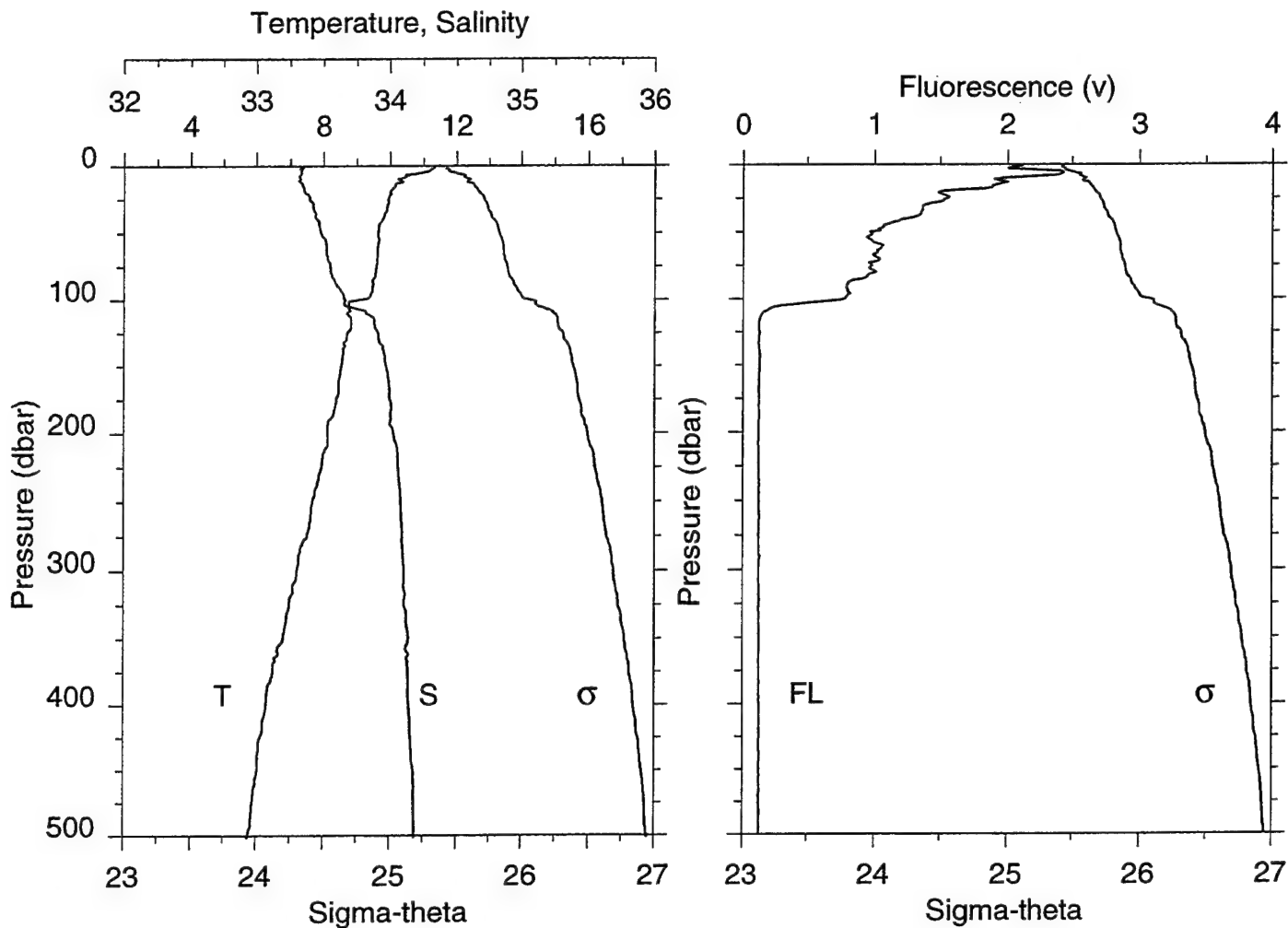
STANO 5 LAT: 37 33.2 N LONG: 123 35.1 W
19 JUN 1993 1850 GMT DEPTH 3310

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	12.285	32.922	12.284	24.922	302.2	0.091	1.64
10	12.285	32.922	12.284	24.923	302.4	0.302	2.01
20	11.855	32.983	11.853	25.051	290.4	0.602	3.04
30	11.087	33.143	11.084	25.316	265.4	0.874	1.37
40	10.719	33.210	10.714	25.433	254.5	1.134	1.09
50	10.602	33.222	10.596	25.462	251.9	1.387	0.87
60	10.517	33.245	10.510	25.495	249.0	1.638	0.85
70	10.480	33.265	10.472	25.517	247.1	1.886	0.77
80	10.446	33.292	10.437	25.545	244.7	2.131	0.96
90	10.341	33.301	10.331	25.570	242.5	2.375	0.84
100	9.707	33.383	9.696	25.741	226.4	2.614	0.73
110	9.610	33.414	9.598	25.781	222.7	2.838	0.31
120	9.253	33.583	9.240	25.971	204.8	3.049	0.15
130	9.168	33.677	9.154	26.058	196.8	3.251	0.14
140	8.824	33.680	8.809	26.114	191.5	3.444	0.13
150	8.496	33.729	8.481	26.204	183.1	3.631	0.13
175	8.381	33.873	8.364	26.335	171.2	4.071	0.13
200	8.321	33.997	8.301	26.441	161.5	4.487	0.13
225	7.599	33.955	7.577	26.515	154.7	4.882	0.12
250	7.303	33.982	7.279	26.579	148.9	5.261	0.12
275	7.057	34.014	7.031	26.638	143.5	5.627	0.12
300	7.035	34.064	7.007	26.681	139.9	5.982	0.12
350	7.011	34.174	6.978	26.771	132.1	6.662	0.13
400	6.535	34.181	6.499	26.841	125.9	7.303	0.13
450	6.170	34.202	6.131	26.906	120.1	7.918	0.13
500	5.901	34.220	5.858	26.954	116.0	8.508	0.13
513	5.807	34.221	5.763	26.967	114.8	8.658	0.13



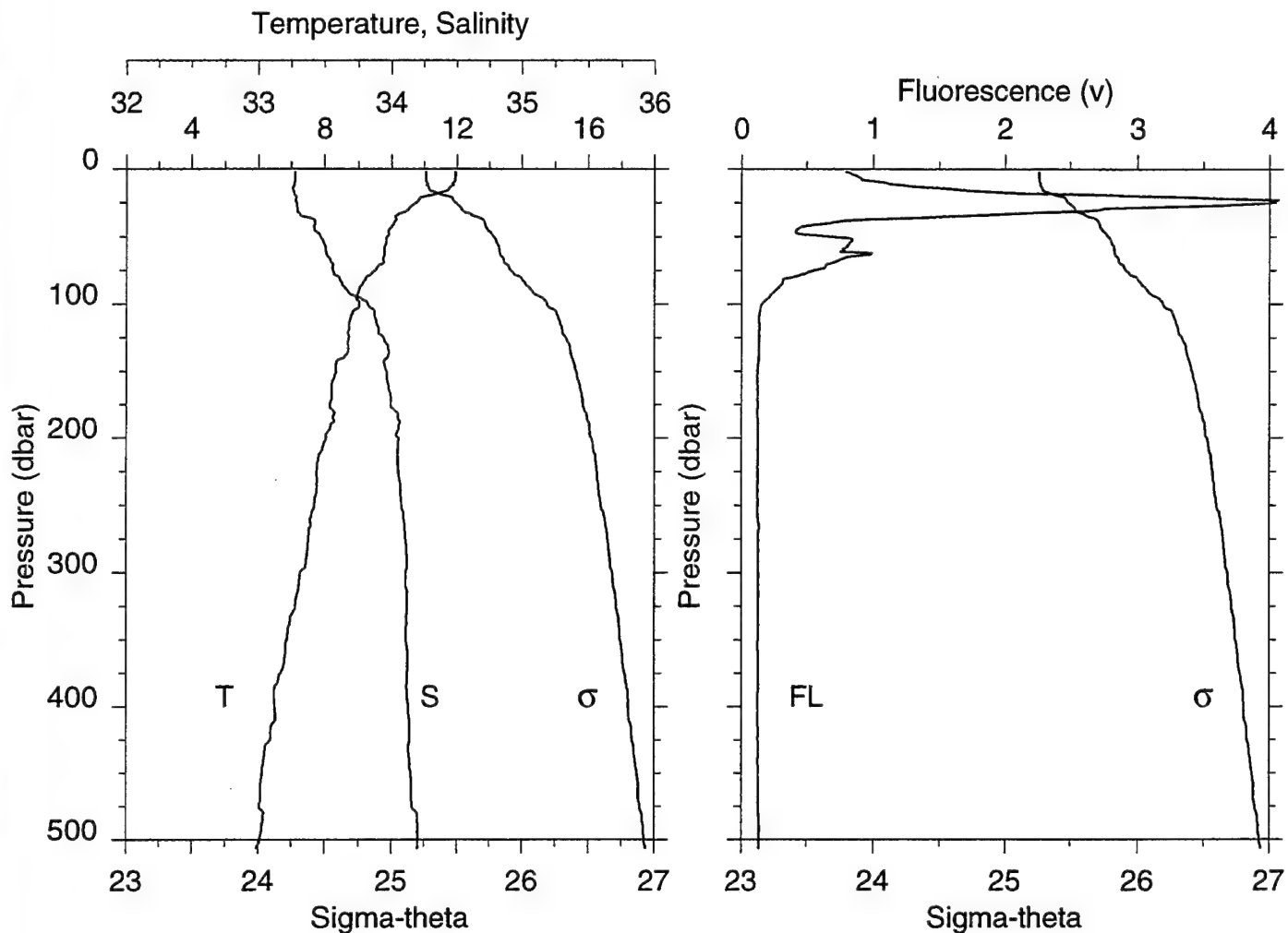
STANO 6 LAT: 37 30.0 N LONG: 123 25.0 W
19 JUN 1993 2221 GMT DEPTH 2200

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	11.529	33.149	11.529	25.240	272.0	0.082	1.04
10	11.459	33.167	11.458	25.267	269.6	0.272	1.62
20	11.349	33.178	11.347	25.295	267.1	0.539	2.52
30	11.018	33.184	11.014	25.360	261.2	0.804	2.04
40	10.528	33.195	10.524	25.454	252.4	1.061	1.61
50	10.065	33.235	10.059	25.565	242.1	1.309	0.40
60	10.101	33.325	10.095	25.628	236.3	1.547	0.92
70	9.952	33.365	9.944	25.685	231.1	1.781	0.72
80	9.688	33.389	9.679	25.748	225.3	2.009	0.65
90	9.260	33.476	9.250	25.885	212.4	2.229	0.27
100	9.157	33.540	9.146	25.952	206.2	2.438	0.17
110	8.991	33.595	8.980	26.022	199.8	2.642	0.16
120	8.641	33.743	8.629	26.192	183.7	2.834	0.14
130	8.414	33.862	8.401	26.320	171.7	3.010	0.13
140	8.605	33.944	8.591	26.356	168.6	3.181	0.13
150	8.667	33.964	8.652	26.362	168.2	3.349	0.12
175	8.368	34.022	8.351	26.453	159.9	3.757	0.12
200	8.168	34.048	8.148	26.504	155.5	4.153	0.12
225	7.893	34.073	7.871	26.565	150.1	4.535	0.13
250	7.622	34.104	7.598	26.629	144.3	4.902	0.13
275	7.441	34.119	7.414	26.667	141.0	5.257	0.13
300	7.309	34.137	7.280	26.700	138.3	5.607	0.13
350	6.946	34.165	6.913	26.773	131.9	6.280	0.13
400	6.429	34.141	6.393	26.823	127.4	6.927	0.13
450	6.081	34.182	6.042	26.901	120.5	7.547	0.13
500	5.761	34.227	5.718	26.977	113.6	8.131	0.14
507	5.731	34.225	5.688	26.979	113.5	8.210	0.14



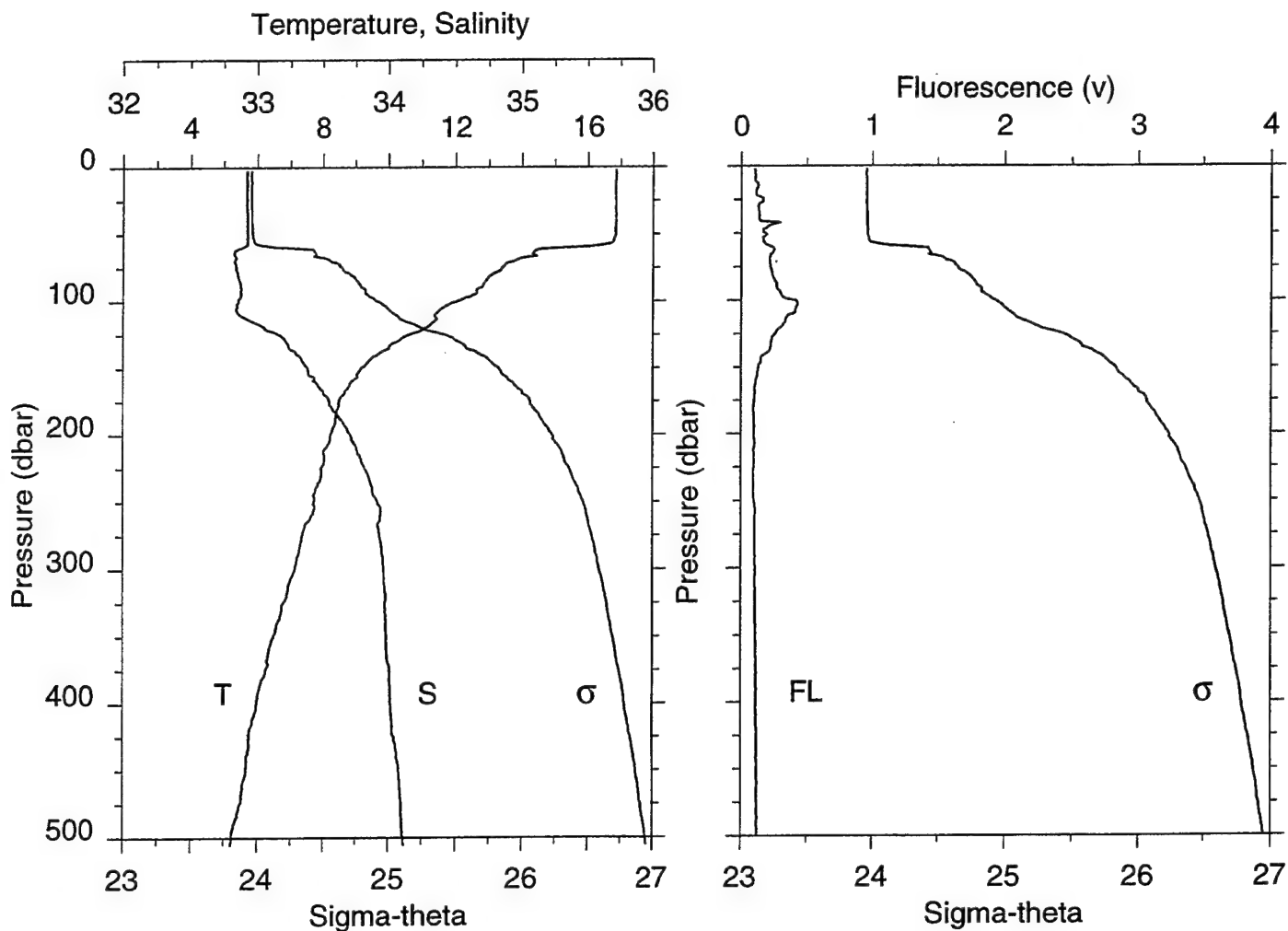
STA NO 7 LAT: 37 30.1 N LONG: 123 14.9 W
20 JUN 1993 5 GMT DEPTH 1600

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
1	11.329	33.353	11.329	25.434	253.5	0.025	2.12
10	10.242	33.324	10.241	25.603	237.6	0.248	1.99
20	9.995	33.361	9.992	25.674	231.1	0.483	1.51
30	9.911	33.421	9.907	25.735	225.5	0.711	1.39
40	9.763	33.454	9.758	25.786	220.9	0.934	1.26
50	9.635	33.481	9.629	25.828	217.1	1.153	0.96
60	9.625	33.520	9.618	25.860	214.2	1.368	1.06
70	9.606	33.532	9.598	25.873	213.2	1.582	1.04
80	9.554	33.558	9.545	25.902	210.7	1.794	1.01
90	9.467	33.610	9.457	25.957	205.7	2.002	0.79
100	9.007	33.663	8.996	26.072	194.8	2.204	0.78
110	8.707	33.819	8.696	26.241	178.9	2.392	0.16
120	8.826	33.886	8.813	26.276	175.9	2.568	0.13
130	8.691	33.914	8.678	26.319	171.9	2.741	0.13
140	8.596	33.954	8.581	26.365	167.7	2.911	0.13
150	8.533	33.970	8.518	26.387	165.8	3.077	0.13
175	8.393	33.999	8.375	26.432	162.0	3.486	0.13
200	8.126	34.027	8.105	26.495	156.4	3.884	0.12
225	7.947	34.063	7.924	26.549	151.6	4.269	0.13
250	7.678	34.083	7.654	26.604	146.7	4.641	0.13
275	7.522	34.094	7.495	26.636	144.0	5.005	0.12
300	7.209	34.109	7.180	26.693	138.9	5.356	0.13
350	6.802	34.141	6.770	26.774	131.7	6.034	0.13
400	6.309	34.145	6.273	26.842	125.6	6.675	0.13
450	6.042	34.179	6.003	26.904	120.2	7.289	0.13
500	5.769	34.186	5.727	26.943	116.8	7.881	0.13
502	5.736	34.187	5.694	26.949	116.3	7.904	0.13



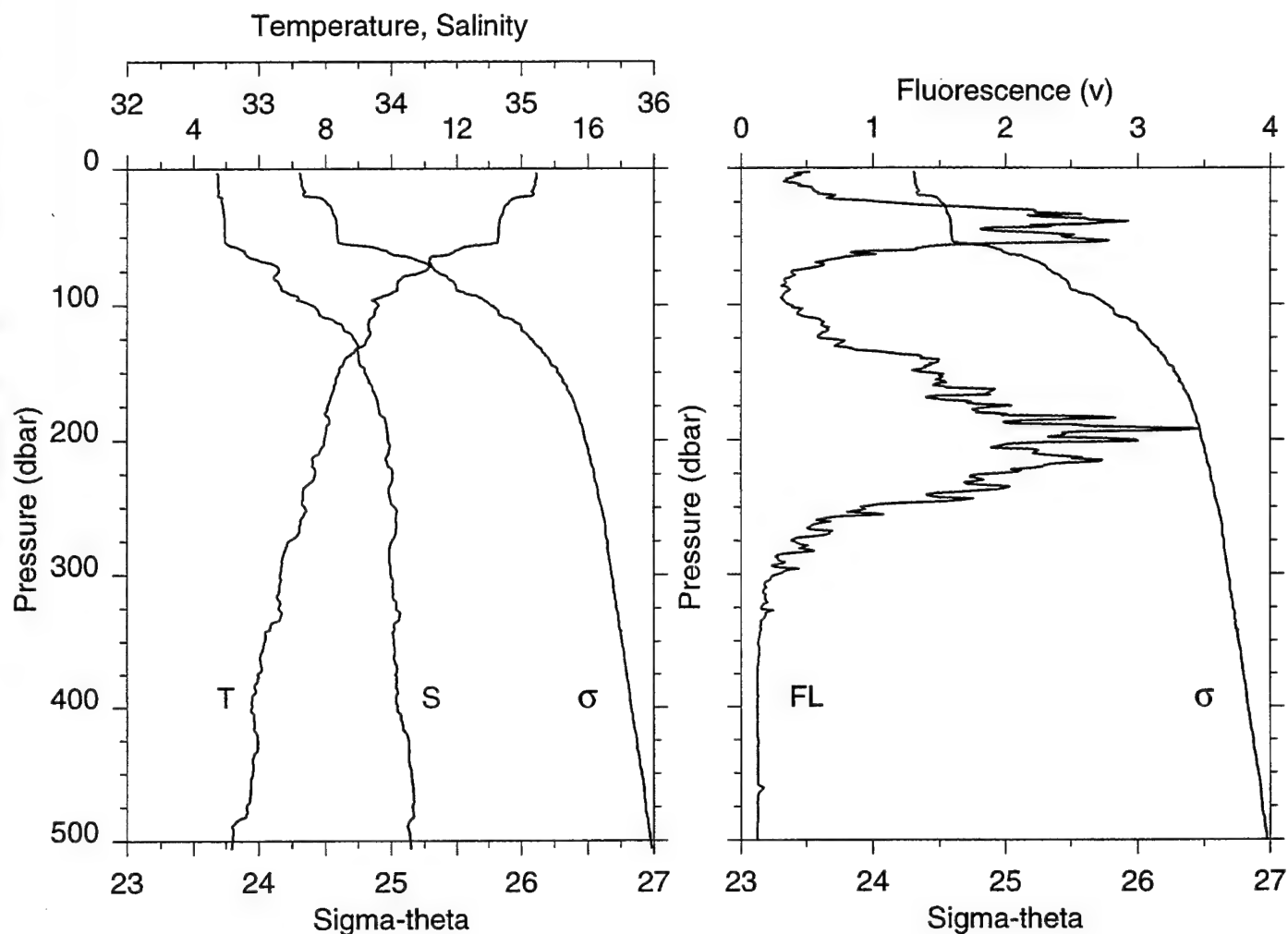
STANO 8 LAT: 37 15.4 N LONG: 123 9.4 W
21 JUN 1993 2038 GMT DEPTH 1100

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	11.955	33.280	11.954	25.262	269.9	0.054	0.79
10	11.910	33.275	11.909	25.267	269.6	0.270	1.08
20	11.090	33.285	11.087	25.425	254.8	0.536	3.01
30	10.509	33.295	10.505	25.535	244.5	0.784	2.73
40	10.066	33.428	10.061	25.715	227.7	1.019	0.65
50	9.854	33.471	9.849	25.784	221.3	1.244	0.71
60	9.771	33.506	9.764	25.825	217.6	1.463	0.78
70	9.716	33.560	9.709	25.876	212.9	1.679	0.65
80	9.220	33.607	9.211	25.994	201.8	1.887	0.38
90	9.005	33.668	8.996	26.076	194.2	2.086	0.26
100	9.018	33.817	9.007	26.191	183.6	2.274	0.16
110	8.772	33.873	8.760	26.274	175.8	2.453	0.13
120	8.702	33.900	8.689	26.306	173.0	2.627	0.13
130	8.685	33.965	8.671	26.359	168.1	2.798	0.13
140	8.559	33.967	8.545	26.381	166.2	2.965	0.13
150	8.339	33.963	8.324	26.412	163.4	3.130	0.12
175	8.170	33.994	8.153	26.462	159.1	3.532	0.13
200	8.058	34.055	8.038	26.526	153.4	3.922	0.13
225	7.769	34.053	7.746	26.568	149.7	4.301	0.13
250	7.699	34.077	7.674	26.597	147.3	4.672	0.12
275	7.527	34.108	7.500	26.647	143.0	5.034	0.13
300	7.284	34.109	7.255	26.682	140.0	5.389	0.13
350	6.878	34.111	6.846	26.740	134.9	6.075	0.13
400	6.508	34.128	6.472	26.803	129.4	6.734	0.13
450	6.127	34.147	6.087	26.867	123.7	7.367	0.13
500	6.060	34.203	6.016	26.921	119.3	7.975	0.13
507	5.955	34.203	5.911	26.934	118.0	8.058	0.13



STAN NO 9 LAT: 36 14.9 N LONG: 126 43.0 W
28 JUN 1993 1745 GMT DEPTH 1750

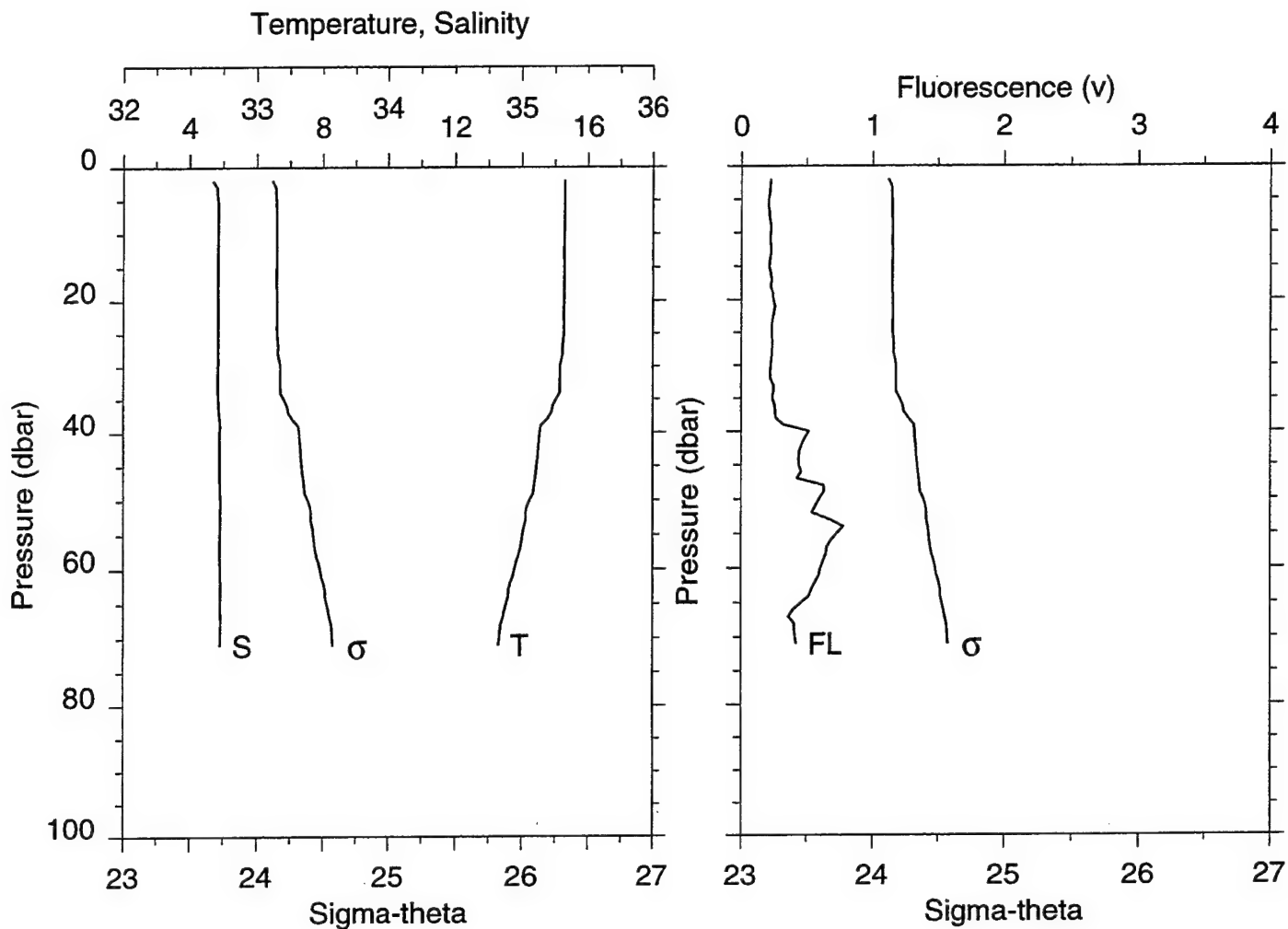
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.855	32.923	16.855	23.955	394.4	0.079	0.10
10	16.852	32.922	16.851	23.956	394.6	0.395	0.10
20	16.852	32.921	16.849	23.955	395.0	0.789	0.11
30	16.853	32.921	16.848	23.956	395.2	1.184	0.13
40	16.854	32.924	16.847	23.958	395.3	1.580	0.14
50	16.840	32.926	16.832	23.964	395.1	1.975	0.19
60	15.182	32.873	15.173	24.296	363.6	2.365	0.23
70	13.752	32.830	13.742	24.564	338.2	2.713	0.22
80	13.093	32.855	13.082	24.716	323.9	3.043	0.23
90	12.703	32.882	12.691	24.814	314.8	3.363	0.27
100	12.043	32.861	12.030	24.923	304.6	3.674	0.41
110	11.371	32.874	11.357	25.057	291.9	3.972	0.39
120	11.037	33.056	11.023	25.259	272.9	4.255	0.30
130	10.237	33.215	10.222	25.522	247.9	4.514	0.23
140	9.643	33.308	9.628	25.693	231.7	4.754	0.19
150	9.166	33.381	9.150	25.827	219.0	4.979	0.13
175	8.488	33.550	8.471	26.065	196.7	5.499	0.10
200	8.241	33.711	8.221	26.229	181.5	5.973	0.10
225	7.942	33.821	7.919	26.360	169.5	6.411	0.10
250	7.725	33.918	7.700	26.468	159.6	6.823	0.10
275	7.360	33.935	7.333	26.534	153.5	7.214	0.11
300	7.137	33.965	7.109	26.589	148.6	7.591	0.11
350	6.492	33.987	6.460	26.693	139.0	8.309	0.11
400	5.993	34.018	5.959	26.782	130.9	8.983	0.12
450	5.681	34.079	5.643	26.869	123.1	9.617	0.12
500	5.254	34.111	5.213	26.946	116.0	10.214	0.12
506	5.227	34.118	5.186	26.954	115.2	10.284	0.12



STA NO 10 LAT: 37 55.0 N LONG: 126 28.0 W
 29 JUN 1993 2032 GMT DEPTH 4500

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	14.446	32.679	14.445	24.302	361.3	0.108	0.53
10	14.414	32.690	14.412	24.317	360.1	0.361	0.33
20	14.302	32.688	14.299	24.340	358.2	0.720	0.72
30	13.455	32.732	13.451	24.547	338.7	1.063	1.93
40	13.323	32.741	13.318	24.581	335.7	1.400	2.74
50	13.291	32.744	13.284	24.590	335.2	1.735	2.43
60	11.926	32.897	11.918	24.972	298.9	2.058	1.32
70	11.194	33.115	11.186	25.275	270.2	2.342	0.63
80	10.313	33.114	10.304	25.429	255.7	2.605	0.37
90	10.047	33.210	10.037	25.549	244.5	2.856	0.35
100	9.618	33.402	9.607	25.770	223.6	3.088	0.38
110	9.351	33.541	9.339	25.922	209.3	3.306	0.56
120	9.365	33.675	9.352	26.025	199.8	3.510	0.65
130	9.158	33.749	9.144	26.116	191.3	3.705	0.73
140	8.591	33.753	8.576	26.208	182.6	3.892	1.36
150	8.412	33.800	8.397	26.272	176.6	4.071	1.35
175	8.059	33.903	8.042	26.406	164.3	4.496	2.05
200	7.959	33.976	7.939	26.479	157.8	4.897	2.98
225	7.677	34.010	7.655	26.547	151.7	5.283	1.95
250	7.380	34.030	7.356	26.605	146.4	5.657	0.91
275	6.908	34.005	6.882	26.652	142.2	6.017	0.39
300	6.638	33.997	6.611	26.681	139.5	6.370	0.28
350	6.178	34.019	6.148	26.759	132.6	7.051	0.13
400	5.797	34.048	5.764	26.830	126.2	7.697	0.12
450	5.819	34.151	5.781	26.909	119.4	8.311	0.13
500	5.206	34.143	5.166	26.977	113.0	8.894	0.12
506	5.183	34.147	5.143	26.983	112.5	8.961	0.12

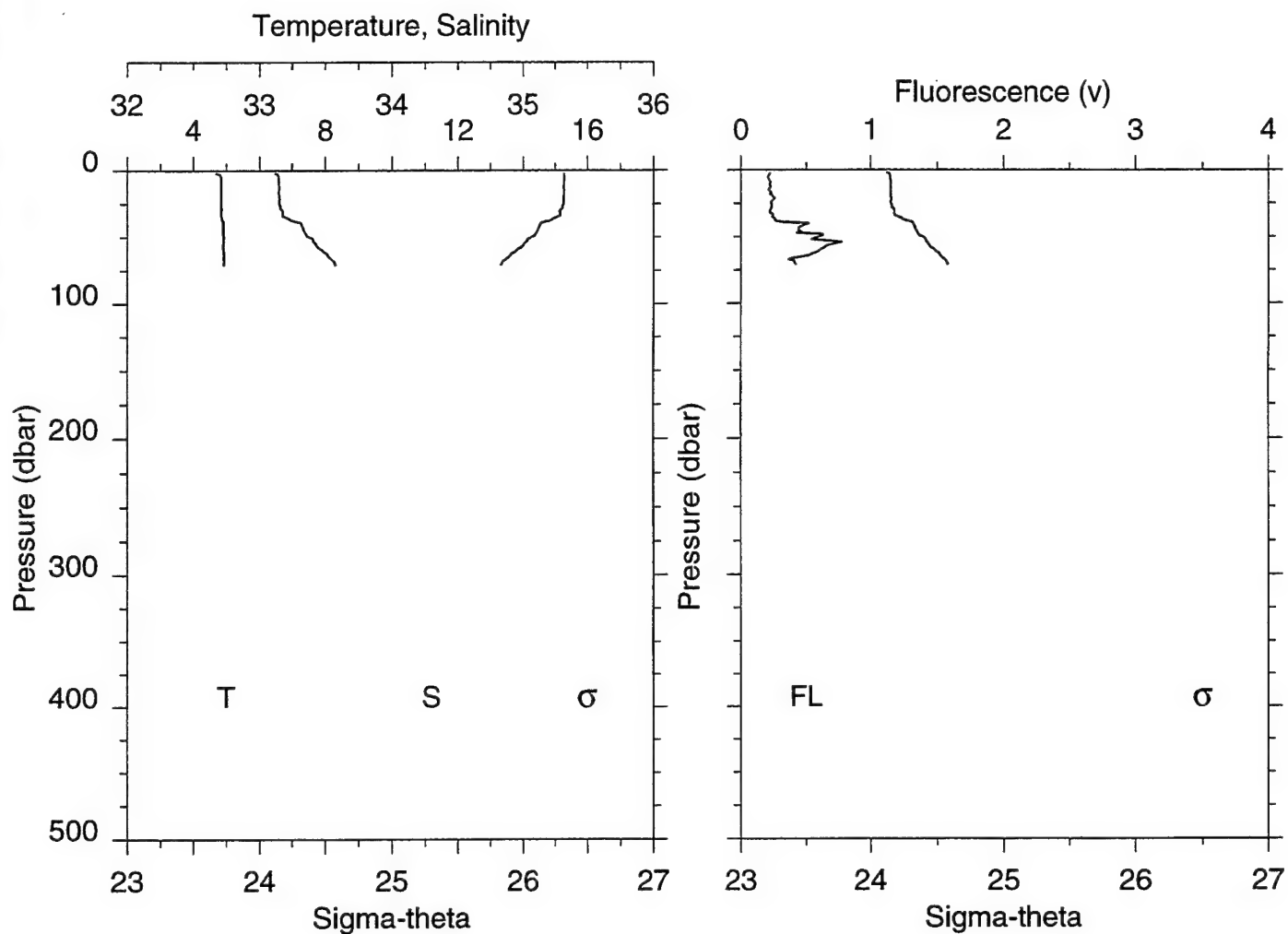
no data at 251 dbar



STA NO 11 LAT: 37 50.0 N LONG: 126 40.1 W
 30 JUN 1993 550 GMT DEPTH 2638

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
2	15.285	32.673	15.285	24.117	378.9	0.076	0.22
10	15.283	32.712	15.282	24.148	376.2	0.377	0.22
20	15.270	32.713	15.267	24.152	376.2	0.753	0.25
30	15.150	32.712	15.145	24.178	373.9	1.129	0.23
40	14.538	32.725	14.532	24.320	360.7	1.499	0.52
50	14.240	32.732	14.232	24.387	354.5	1.858	0.59
60	13.785	32.730	13.777	24.480	345.9	2.208	0.61
70	13.334	32.731	13.324	24.572	337.4	2.549	0.41
71	13.306	32.730	13.297	24.576	337.0	2.583	0.42

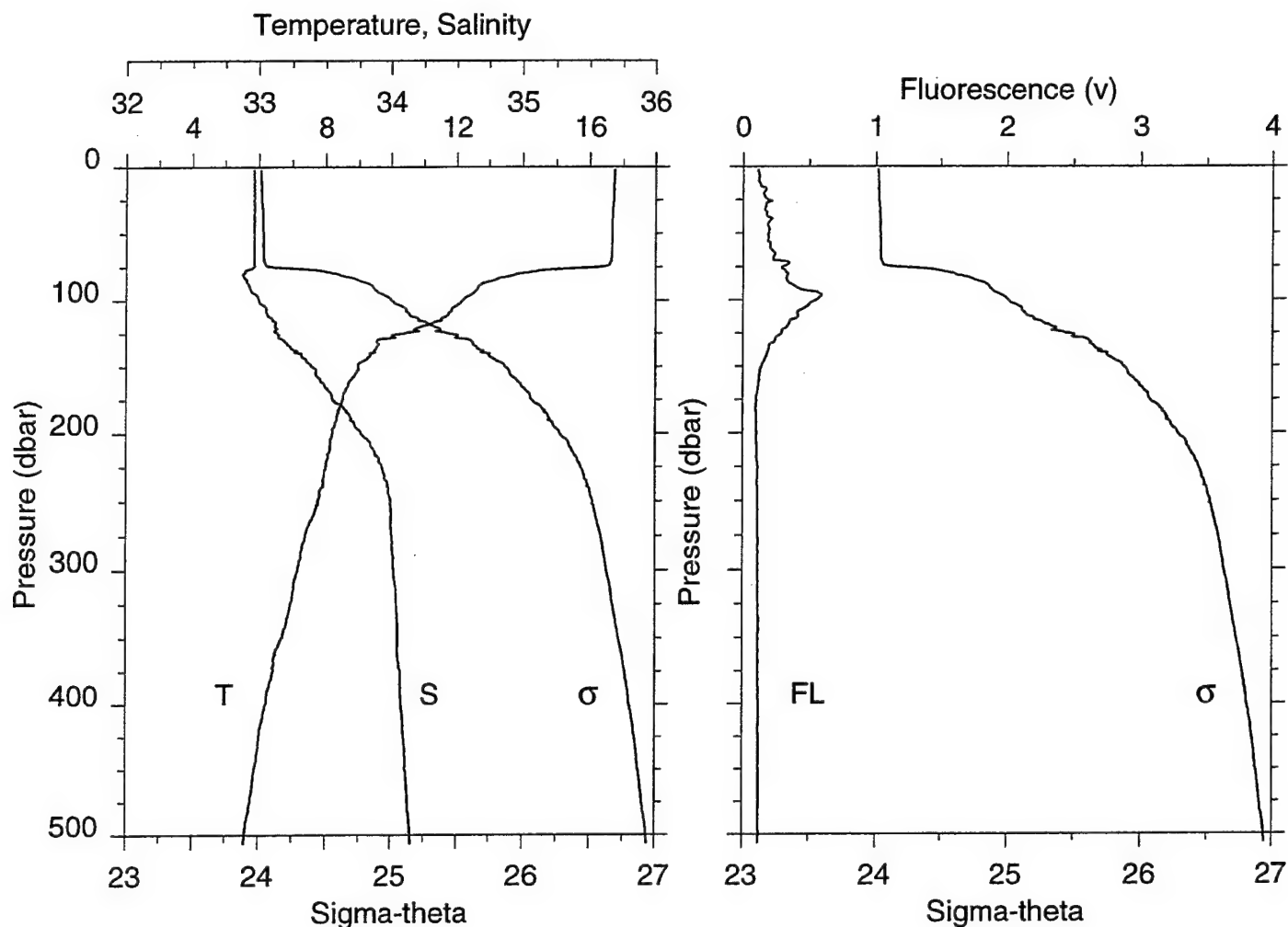
no data at 65 dbar



STA NO 11 LAT: 37 50.0 N LONG: 126 40.1 W
30 JUN 1993 550 GMT DEPTH 2638

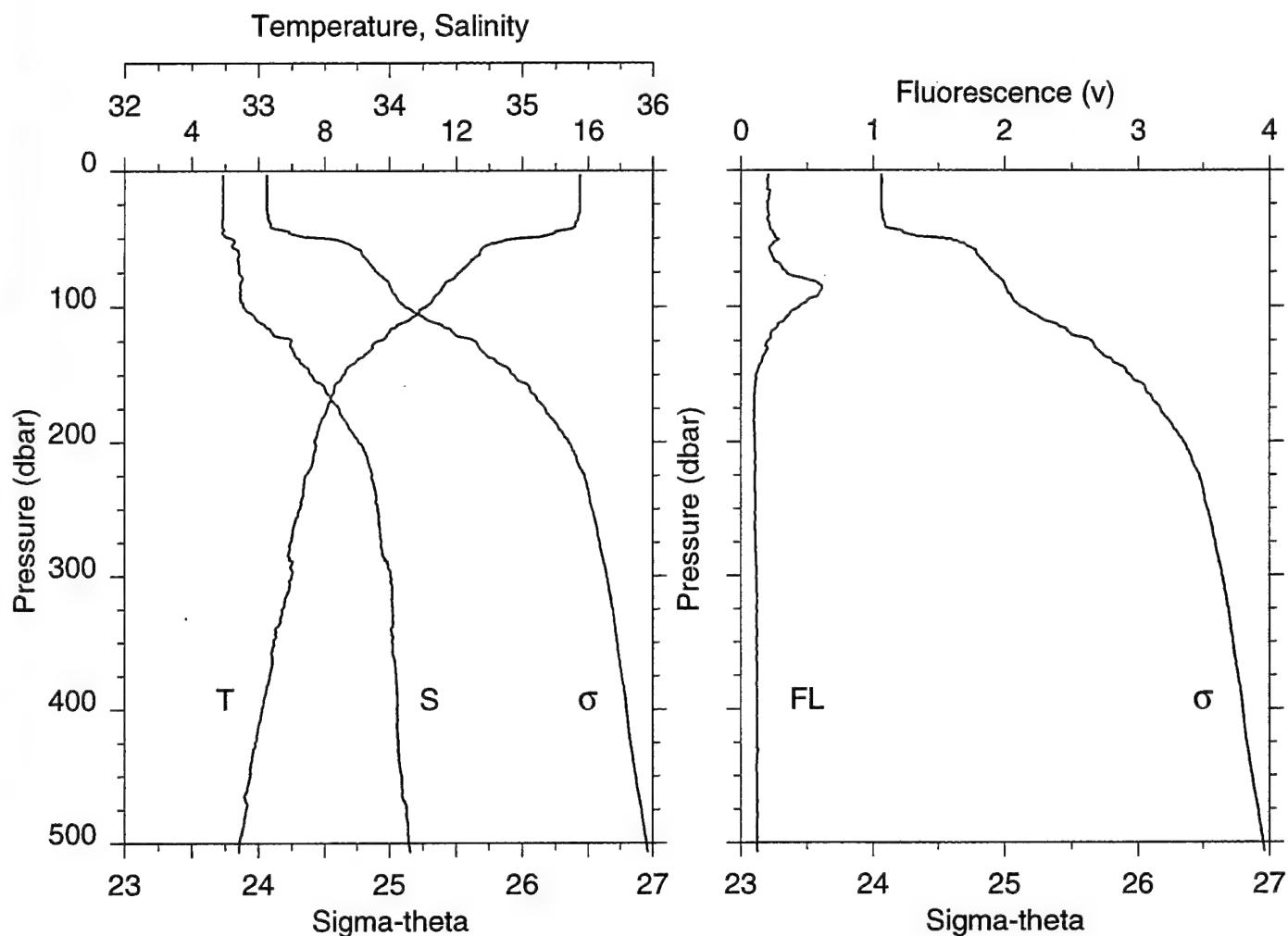
P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
2	15.285	32.673	15.285	24.117	378.9	0.076	0.22
10	15.283	32.712	15.282	24.148	376.2	0.377	0.22
20	15.270	32.713	15.267	24.152	376.2	0.753	0.25
30	15.150	32.712	15.145	24.178	373.9	1.129	0.23
40	14.538	32.725	14.532	24.320	360.7	1.499	0.52
50	14.240	32.732	14.232	24.387	354.5	1.858	0.59
60	13.785	32.730	13.777	24.480	345.9	2.208	0.61
70	13.334	32.731	13.324	24.572	337.4	2.549	0.41
71	13.306	32.730	13.297	24.576	337.0	2.583	0.42

no data at 65 dbar



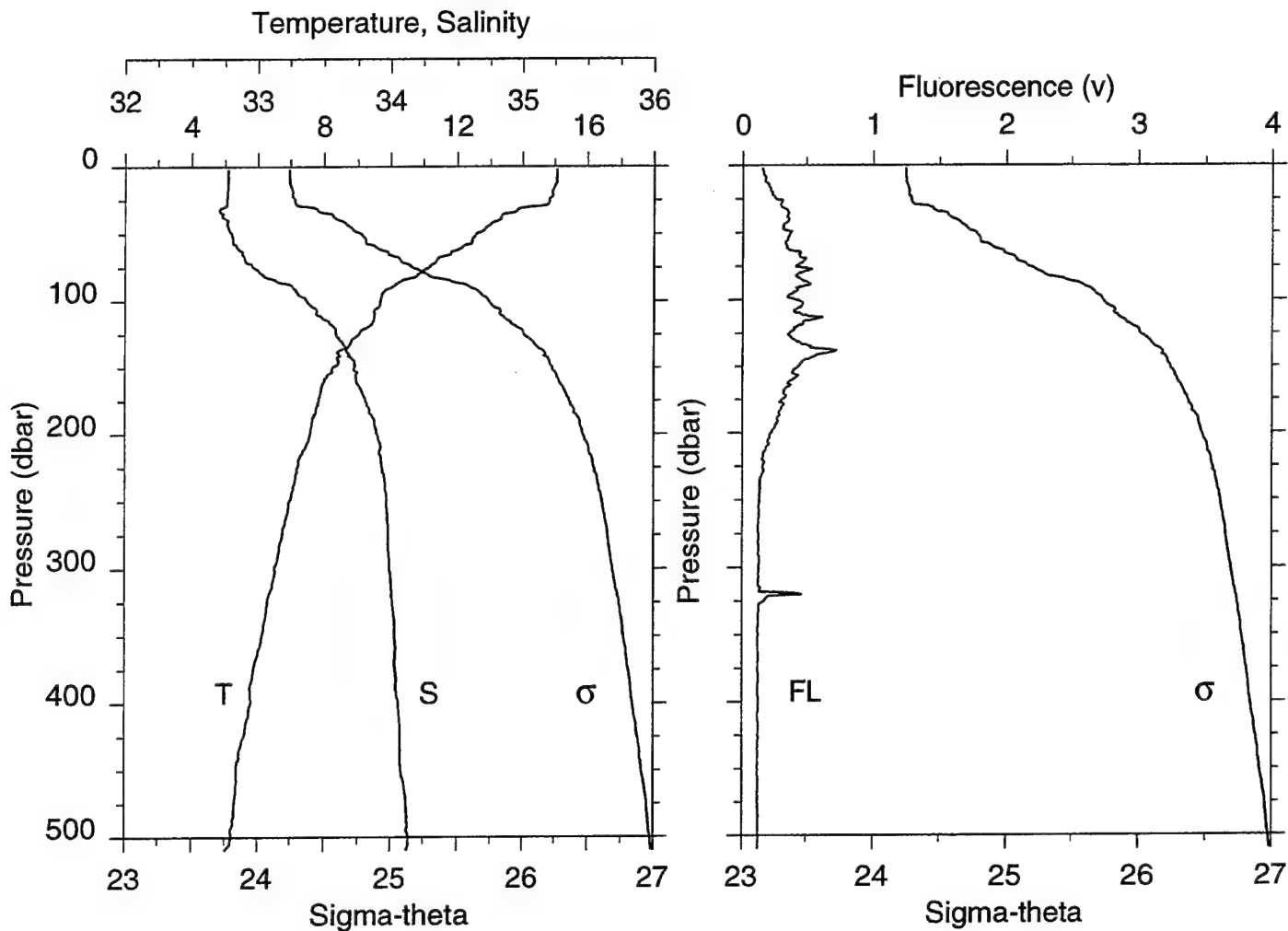
STANO 12 LAT: 37 18.8 N LONG: 125 39.1 W
 02 JUL 1993 2122 GMT DEPTH 4400

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.743	32.963	16.743	24.012	389.0	0.078	0.12
10	16.730	32.964	16.728	24.016	388.8	0.389	0.12
20	16.713	32.964	16.710	24.020	388.8	0.778	0.16
30	16.691	32.964	16.686	24.026	388.5	1.166	0.18
40	16.675	32.965	16.669	24.031	388.4	1.555	0.21
50	16.670	32.964	16.662	24.032	388.6	1.943	0.20
60	16.666	32.965	16.656	24.034	388.8	2.332	0.21
70	16.650	32.965	16.639	24.038	388.7	2.721	0.23
80	13.826	32.883	13.814	24.590	336.0	3.090	0.34
90	12.657	32.932	12.645	24.861	310.3	3.411	0.40
100	12.182	33.002	12.169	25.006	296.7	3.715	0.55
110	11.737	33.065	11.724	25.139	284.2	4.005	0.41
120	10.884	33.124	10.869	25.339	265.3	4.280	0.34
130	9.566	33.187	9.552	25.611	239.3	4.535	0.25
140	9.329	33.320	9.314	25.753	225.9	4.770	0.19
150	8.974	33.399	8.959	25.871	214.8	4.991	0.14
175	8.498	33.559	8.480	26.071	196.2	5.503	0.10
200	8.203	33.766	8.183	26.278	176.9	5.967	0.11
225	8.011	33.930	7.989	26.435	162.4	6.388	0.12
250	7.769	33.998	7.744	26.525	154.3	6.783	0.12
275	7.400	34.008	7.373	26.585	148.7	7.163	0.12
300	7.177	34.023	7.149	26.629	144.9	7.529	0.12
350	6.691	34.056	6.660	26.722	136.5	8.232	0.12
400	6.231	34.081	6.195	26.802	129.3	8.894	0.12
450	5.891	34.116	5.853	26.873	122.9	9.523	0.12
500	5.604	34.151	5.562	26.936	117.4	10.123	0.13
507	5.589	34.153	5.546	26.939	117.1	10.205	0.12



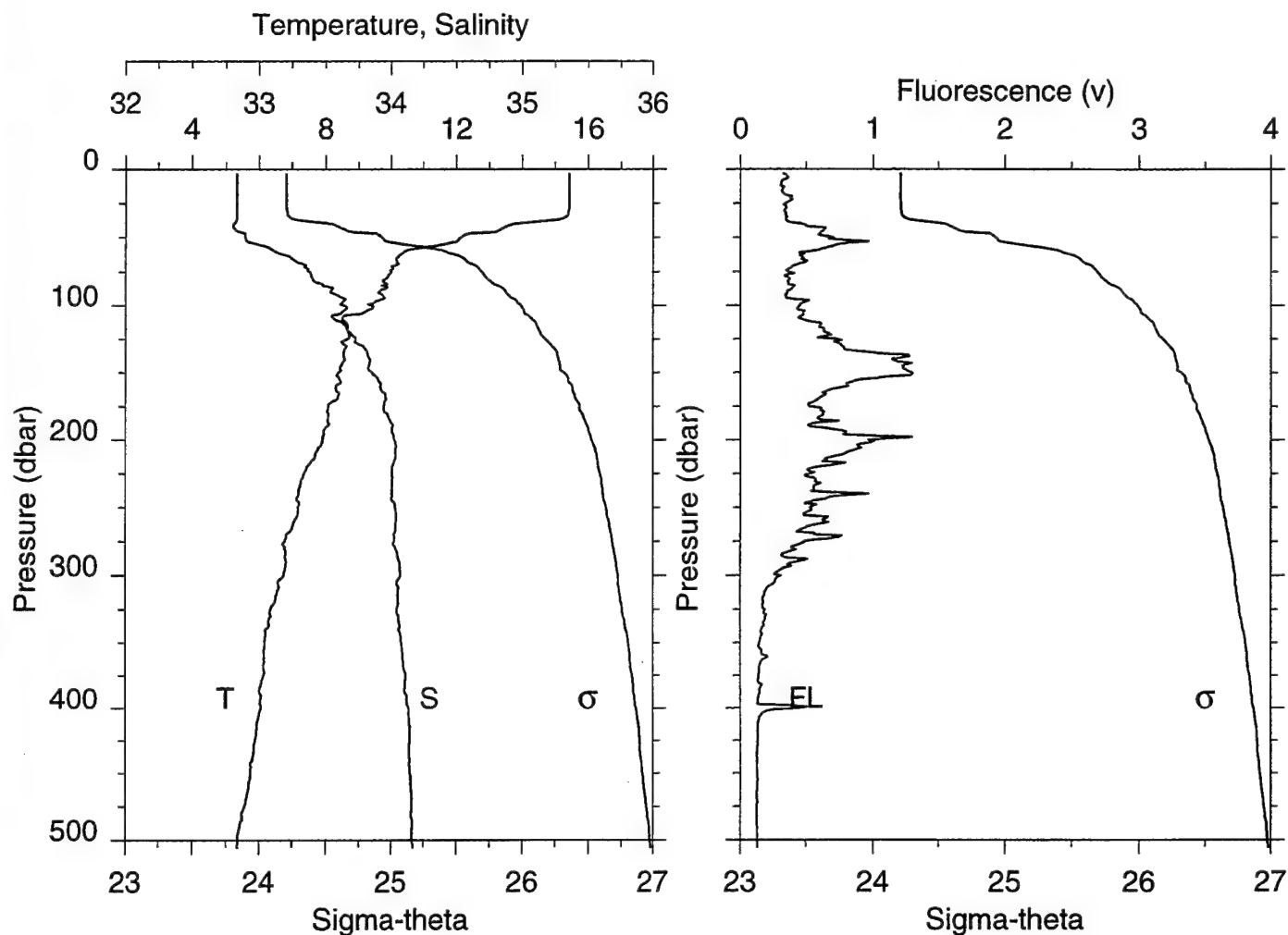
STANO 13 LAT: 37 32.8 N LONG: 125 44.6 W
 03 JUL 1993 335 GMT DEPTH 4325

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.746	32.735	15.746	24.063	384.1	0.115	0.21
10	15.746	32.735	15.744	24.064	384.3	0.384	0.20
20	15.751	32.735	15.748	24.063	384.6	0.769	0.21
30	15.741	32.734	15.737	24.065	384.7	1.153	0.21
40	15.602	32.727	15.596	24.091	382.6	1.537	0.22
50	13.870	32.795	13.863	24.513	342.6	1.908	0.26
60	12.718	32.850	12.710	24.785	316.8	2.234	0.22
70	12.306	32.853	12.297	24.866	309.2	2.547	0.30
80	11.856	32.879	11.846	24.972	299.4	2.852	0.49
90	11.467	32.862	11.455	25.030	294.0	3.148	0.59
100	11.083	32.886	11.071	25.118	285.8	3.438	0.44
110	10.555	32.994	10.542	25.294	269.2	3.715	0.33
120	9.929	33.112	9.916	25.492	250.4	3.973	0.23
130	9.495	33.252	9.480	25.673	233.3	4.212	0.20
140	8.967	33.311	8.952	25.804	221.0	4.440	0.16
150	8.563	33.400	8.548	25.936	208.5	4.654	0.12
175	8.070	33.610	8.053	26.175	186.2	5.145	0.10
200	7.692	33.763	7.672	26.350	169.9	5.590	0.10
225	7.407	33.867	7.386	26.473	158.5	6.000	0.11
250	7.235	33.911	7.211	26.532	153.2	6.390	0.11
275	6.957	33.938	6.932	26.592	147.8	6.766	0.11
300	6.992	34.008	6.965	26.642	143.5	7.130	0.12
350	6.452	34.021	6.421	26.725	136.0	7.826	0.12
400	6.110	34.058	6.075	26.799	129.4	8.490	0.12
450	5.747	34.091	5.709	26.871	123.0	9.122	0.12
500	5.432	34.143	5.391	26.951	115.8	9.719	0.12
507	5.408	34.157	5.366	26.964	114.5	9.799	0.13



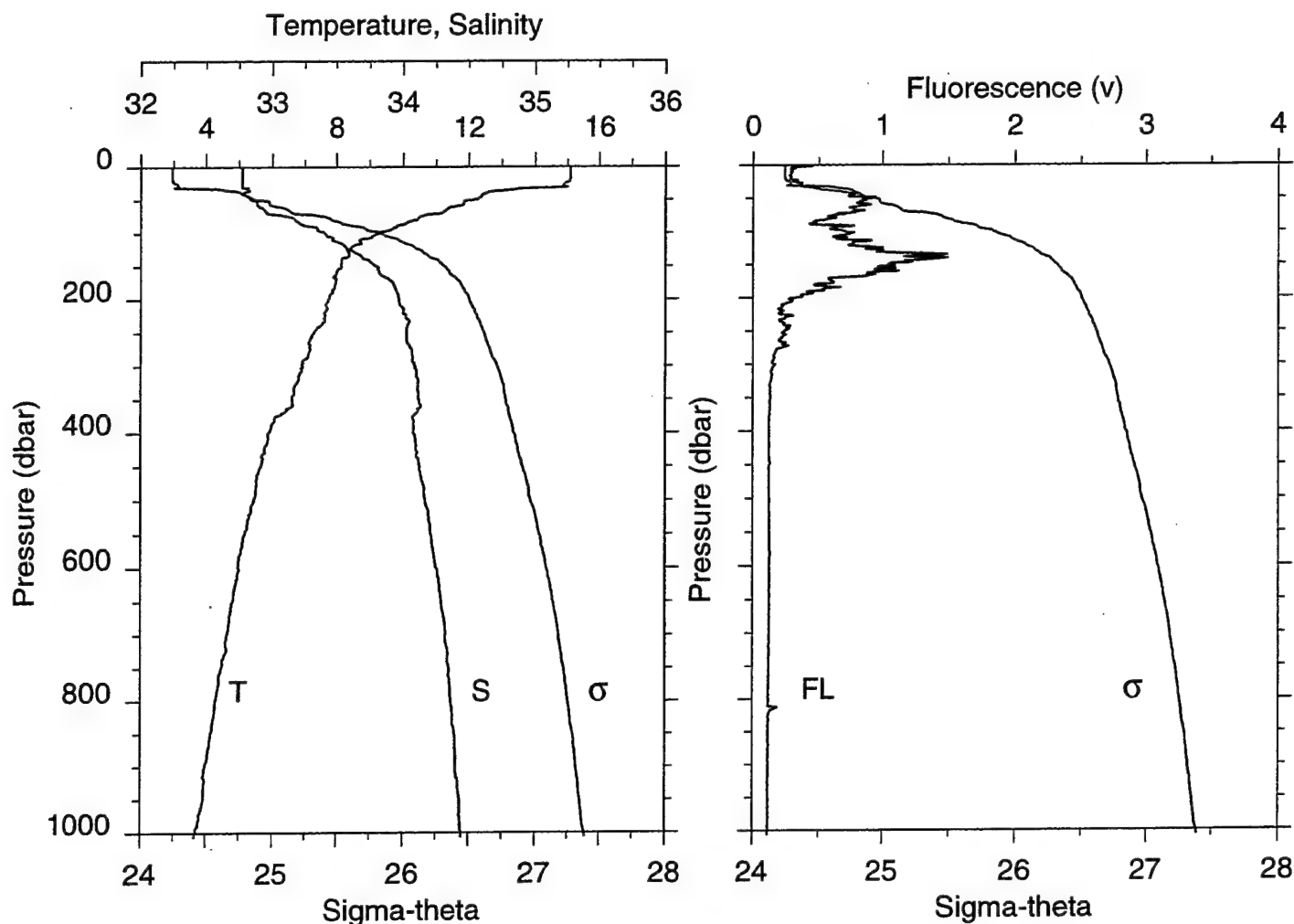
STANO 14 LAT: 37 36.6 N LONG: 125 55.6 W
03 JUL 1993 2053 GMT DEPTH 4200

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.069	32.771	15.069	24.240	367.2	0.073	0.16
10	15.055	32.772	15.054	24.244	367.1	0.367	0.18
20	14.937	32.767	14.934	24.266	365.3	0.733	0.23
30	14.182	32.740	14.178	24.405	352.3	1.097	0.30
40	13.239	32.775	13.233	24.624	331.7	1.438	0.36
50	12.560	32.801	12.554	24.777	317.3	1.763	0.37
60	12.124	32.842	12.116	24.892	306.5	2.076	0.35
70	11.372	32.906	11.364	25.080	288.8	2.373	0.49
80	10.827	33.040	10.817	25.282	269.7	2.652	0.44
90	9.994	33.273	9.984	25.607	239.0	2.906	0.46
100	9.676	33.374	9.665	25.738	226.6	3.137	0.43
110	9.502	33.447	9.490	25.824	218.6	3.359	0.45
120	9.239	33.580	9.226	25.971	204.9	3.571	0.42
130	8.792	33.629	8.779	26.080	194.6	3.771	0.41
140	8.437	33.687	8.423	26.180	185.2	3.961	0.64
150	8.255	33.722	8.240	26.235	180.1	4.143	0.44
175	7.848	33.808	7.831	26.363	168.3	4.578	0.31
200	7.602	33.896	7.583	26.467	158.7	4.985	0.22
225	7.233	33.936	7.211	26.551	151.0	5.371	0.16
250	6.980	33.969	6.957	26.613	145.4	5.741	0.13
275	6.776	33.985	6.751	26.653	141.9	6.101	0.13
300	6.549	33.993	6.522	26.690	138.6	6.452	0.13
350	6.149	34.033	6.119	26.774	131.2	7.124	0.12
400	5.803	34.065	5.769	26.842	125.1	7.764	0.13
450	5.364	34.083	5.328	26.910	118.8	8.372	0.12
500	5.200	34.139	5.160	26.974	113.2	8.951	0.12
510	5.036	34.127	4.995	26.984	112.3	9.063	0.12



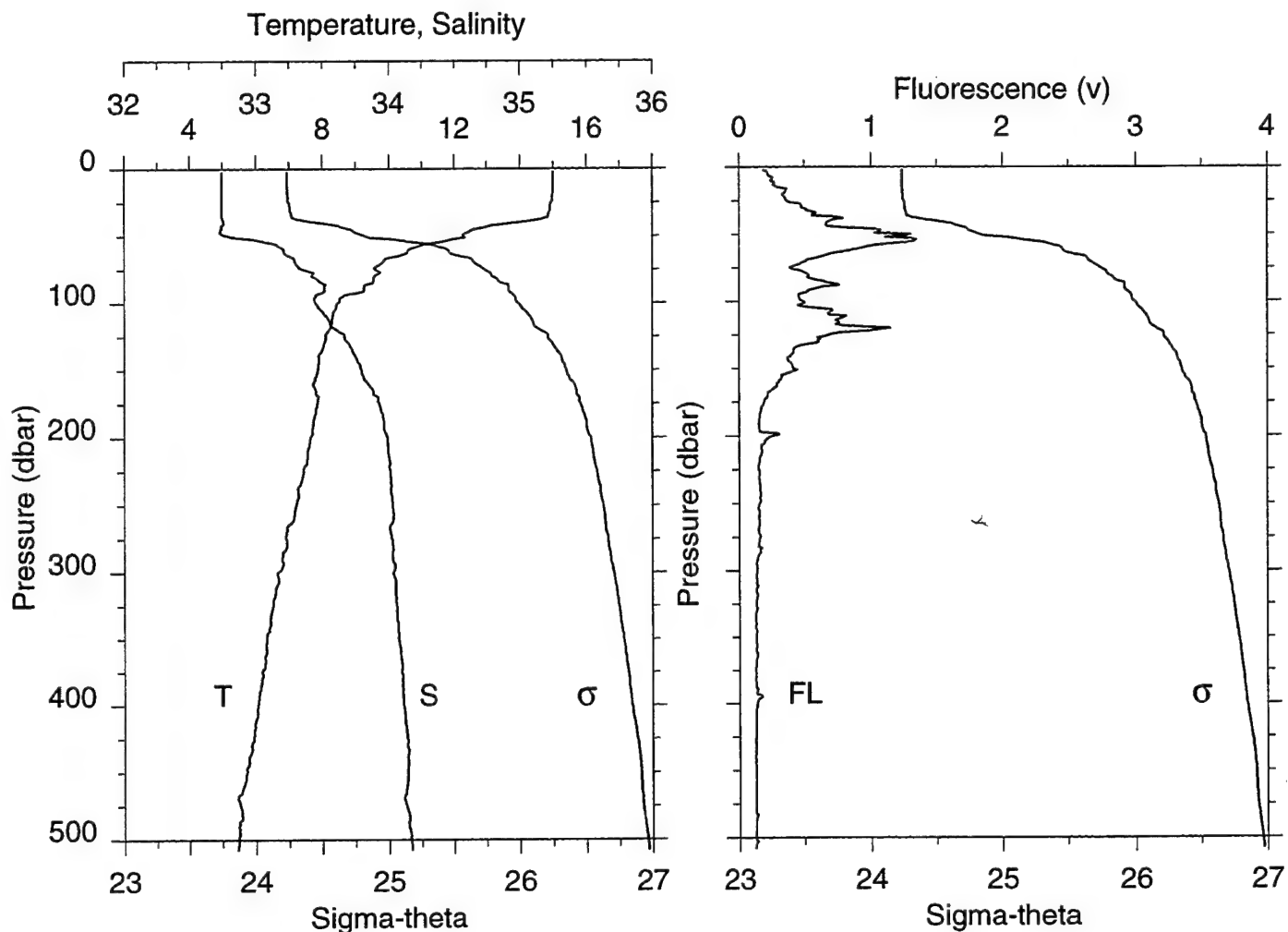
STA NO 15 LAT: 37 44.8 N LONG: 126 5.2 W
04 JUL 1993 657 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.430	32.831	15.429	24.207	370.4	0.111	0.32
10	15.433	32.831	15.431	24.207	370.6	0.370	0.31
20	15.434	32.831	15.431	24.207	370.9	0.741	0.39
30	15.423	32.832	15.419	24.210	370.9	1.112	0.34
40	13.736	32.807	13.731	24.548	338.9	1.476	0.47
50	12.142	32.896	12.136	24.930	302.7	1.799	0.70
60	10.405	33.123	10.398	25.419	256.2	2.082	0.54
70	10.152	33.351	10.144	25.641	235.3	2.327	0.42
80	9.834	33.403	9.825	25.735	226.6	2.558	0.38
90	9.606	33.538	9.596	25.878	213.2	2.777	0.36
100	9.433	33.645	9.422	25.990	202.7	2.985	0.45
110	8.487	33.563	8.475	26.075	194.6	3.184	0.47
120	8.680	33.681	8.668	26.137	188.9	3.375	0.64
130	8.621	33.782	8.608	26.226	180.7	3.560	0.76
140	8.563	33.834	8.548	26.276	176.2	3.738	1.15
150	8.374	33.853	8.359	26.319	172.2	3.913	1.29
175	8.071	33.942	8.053	26.435	161.5	4.329	0.53
200	7.904	34.025	7.884	26.526	153.3	4.723	0.96
225	7.362	34.007	7.341	26.590	147.5	5.098	0.53
250	7.176	34.031	7.153	26.635	143.5	5.462	0.53
275	6.800	34.024	6.775	26.681	139.3	5.815	0.49
300	6.761	34.073	6.734	26.725	135.5	6.158	0.31
350	6.182	34.080	6.152	26.806	128.1	6.819	0.14
400	6.066	34.139	6.031	26.869	122.9	7.447	0.44
450	5.738	34.148	5.700	26.917	118.6	8.050	0.13
500	5.362	34.162	5.321	26.974	113.5	8.629	0.13
506	5.352	34.172	5.311	26.983	112.7	8.697	0.13



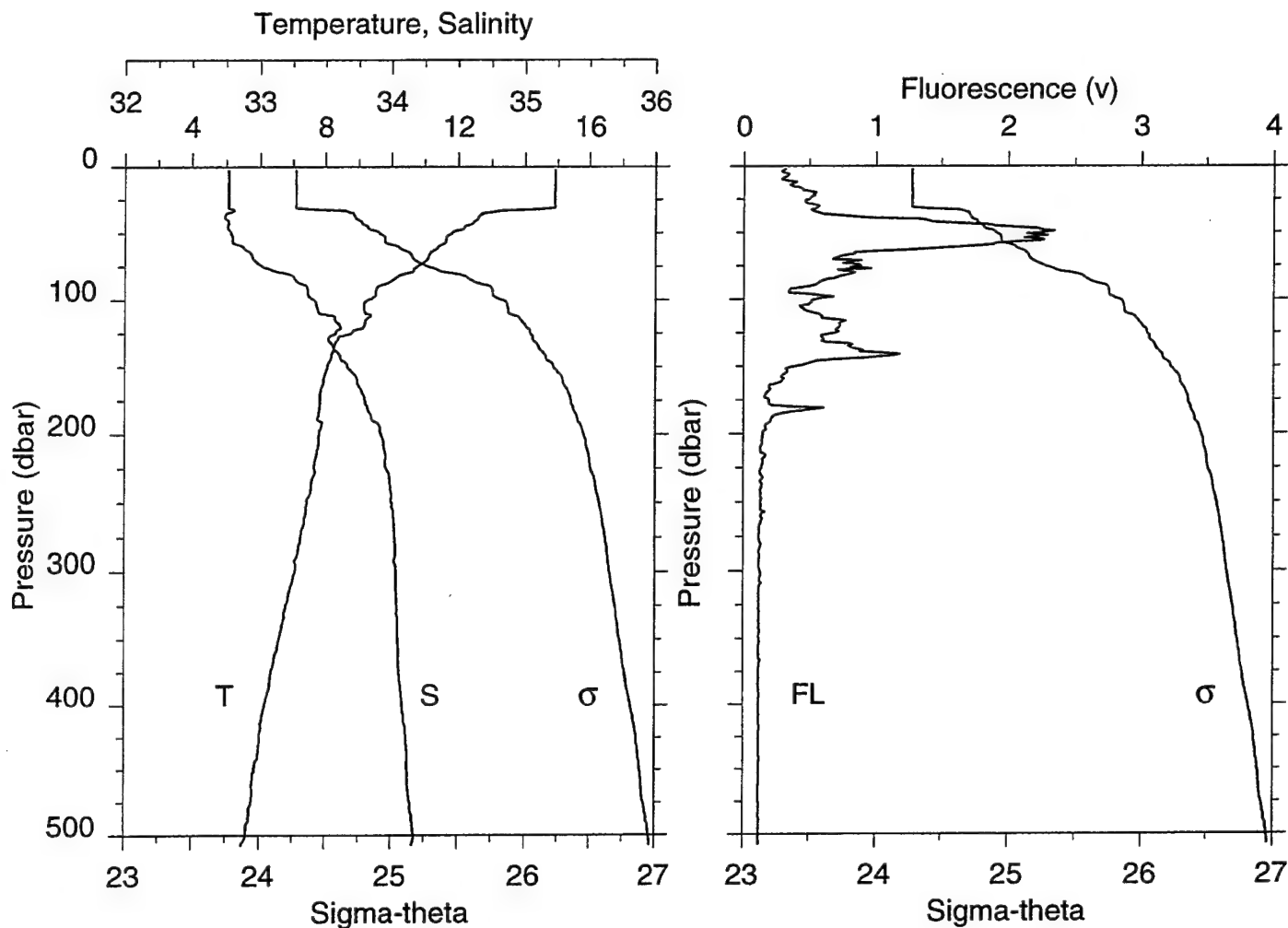
STA NO 16 LAT: 37 50.0 N LONG: 126 11.7 W
04 JUL 1993 1257 GMT DEPTH 4400

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
1	15.077	32.763	15.077	24.232	368.0	0.037	0.45	175	7.970	33.924	7.952	26.436	161.4	4.436	0.60
10	15.082	32.774	15.080	24.240	367.5	0.367	0.30	200	7.745	33.968	7.725	26.504	155.4	4.831	0.32
20	15.057	32.774	15.054	24.245	367.2	0.735	0.29	225	7.636	34.019	7.614	26.560	150.4	5.213	0.22
30	14.895	32.773	14.890	24.280	364.3	1.100	0.36	250	7.277	34.025	7.253	26.616	145.3	5.583	0.24
40	12.535	32.785	12.530	24.769	317.7	1.434	0.67	275	7.166	34.064	7.141	26.662	141.3	5.941	0.22
50	12.164	32.856	12.158	24.895	306.0	1.746	0.91	300	6.947	34.092	6.920	26.715	136.6	6.289	0.17
60	11.586	32.901	11.578	25.038	292.6	2.044	0.91	350	6.622	34.122	6.590	26.783	130.7	6.955	0.14
70	11.174	32.961	11.165	25.159	281.3	2.329	0.80	400	5.872	34.075	5.838	26.842	125.1	7.594	0.12
80	10.401	33.177	10.392	25.462	252.5	2.590	0.62	450	5.676	34.128	5.638	26.909	119.3	8.206	0.13
90	9.809	33.323	9.799	25.676	232.3	2.834	0.50	500	5.455	34.168	5.414	26.967	114.2	8.788	0.13
100	9.261	33.408	9.250	25.832	217.6	3.059	0.70	600	5.001	34.254	4.953	27.089	103.3	9.869	0.13
110	8.694	33.467	8.682	25.968	204.8	3.270	0.69	700	4.647	34.322	4.592	27.184	95.0	10.857	0.13
120	8.479	33.568	8.467	26.079	194.4	3.470	0.74	800	4.293	34.364	4.232	27.256	88.6	11.775	0.12
130	8.389	33.652	8.376	26.160	186.9	3.660	0.96	900	3.984	34.404	3.917	27.321	82.9	12.631	0.12
140	8.163	33.741	8.149	26.263	177.2	3.843	1.49	1000	3.685	34.445	3.612	27.384	77.2	13.435	0.12
150	8.149	33.809	8.134	26.318	172.2	4.018	1.04	1007	3.651	34.446	3.577	27.389	76.7	13.489	0.12



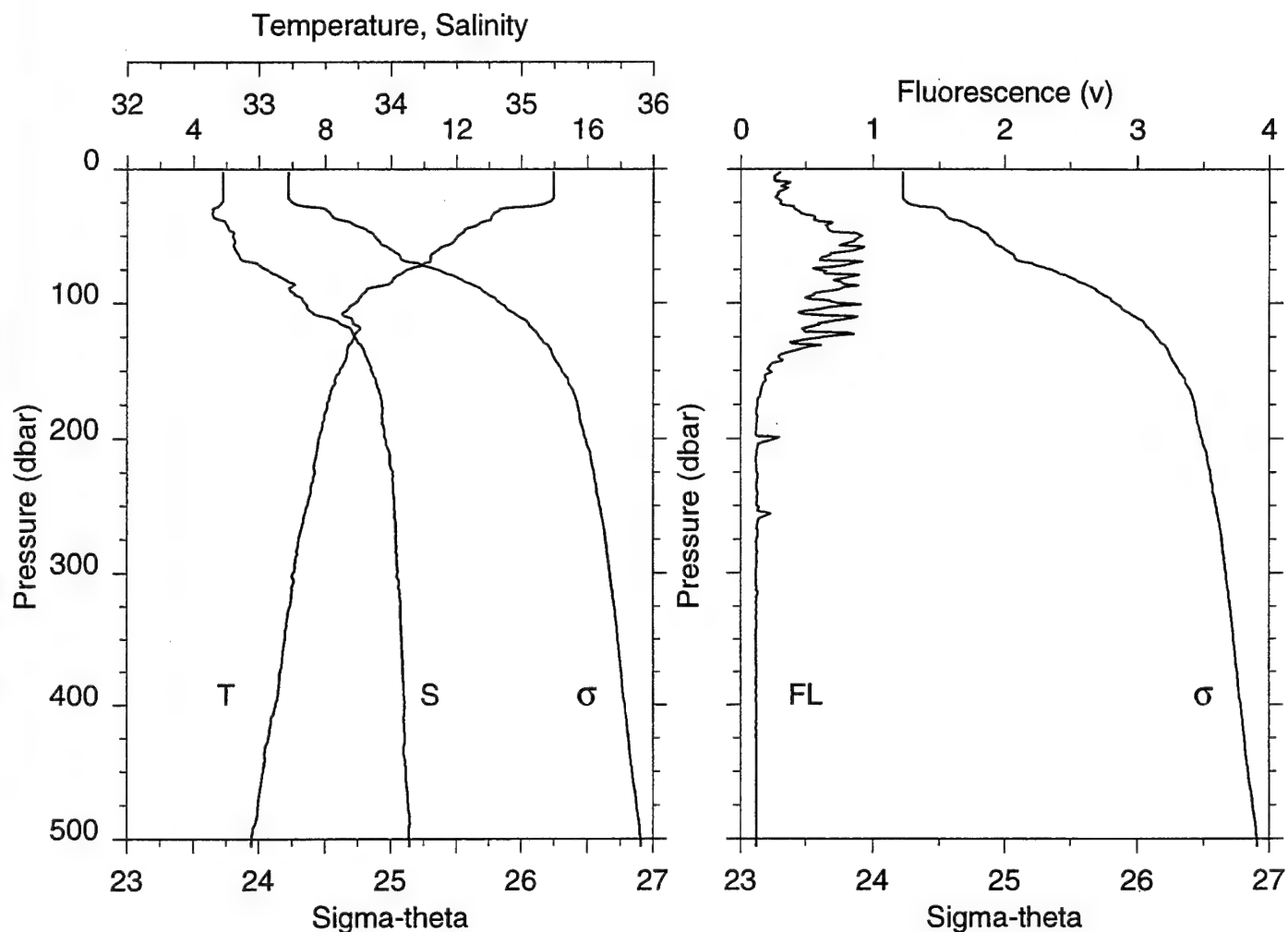
STA NO 17 LAT: 37 53.6 N LONG: 126 20.5 W
04 JUL 1993 1824 GMT DEPTH 4400

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
2	15.005	32.749	15.004	24.237	367.5	0.073	0.18
10	15.008	32.749	15.006	24.236	367.8	0.368	0.24
20	14.987	32.748	14.984	24.241	367.7	0.735	0.34
30	14.915	32.749	14.910	24.257	366.4	1.102	0.48
40	13.850	32.763	13.844	24.492	344.3	1.464	0.69
50	12.299	32.803	12.293	24.828	312.4	1.789	1.30
60	10.608	33.212	10.601	25.454	252.9	2.066	0.94
70	9.794	33.300	9.786	25.660	233.4	2.310	0.51
80	9.581	33.423	9.573	25.792	221.1	2.536	0.53
90	9.258	33.518	9.249	25.919	209.2	2.749	0.60
100	8.456	33.451	8.446	25.991	202.4	2.955	0.49
110	8.308	33.536	8.297	26.081	194.0	3.153	0.69
120	8.197	33.611	8.185	26.156	187.0	3.345	1.15
130	8.061	33.701	8.048	26.247	178.5	3.527	0.61
140	7.899	33.754	7.886	26.313	172.4	3.702	0.40
150	7.865	33.796	7.850	26.350	169.0	3.873	0.42
175	7.843	33.929	7.826	26.459	159.2	4.282	0.19
200	7.645	33.990	7.626	26.536	152.3	4.672	0.26
225	7.439	34.012	7.417	26.583	148.2	5.049	0.15
250	7.207	34.029	7.184	26.629	144.1	5.414	0.16
275	6.922	34.024	6.896	26.664	141.0	5.771	0.16
300	6.644	34.031	6.617	26.708	137.0	6.119	0.14
350	6.322	34.072	6.291	26.783	130.5	6.787	0.13
400	6.063	34.108	6.028	26.845	125.1	7.425	0.14
450	5.720	34.140	5.682	26.913	119.0	8.033	0.13
500	5.495	34.168	5.453	26.962	114.7	8.620	0.12
508	5.460	34.170	5.418	26.968	114.2	8.711	0.12



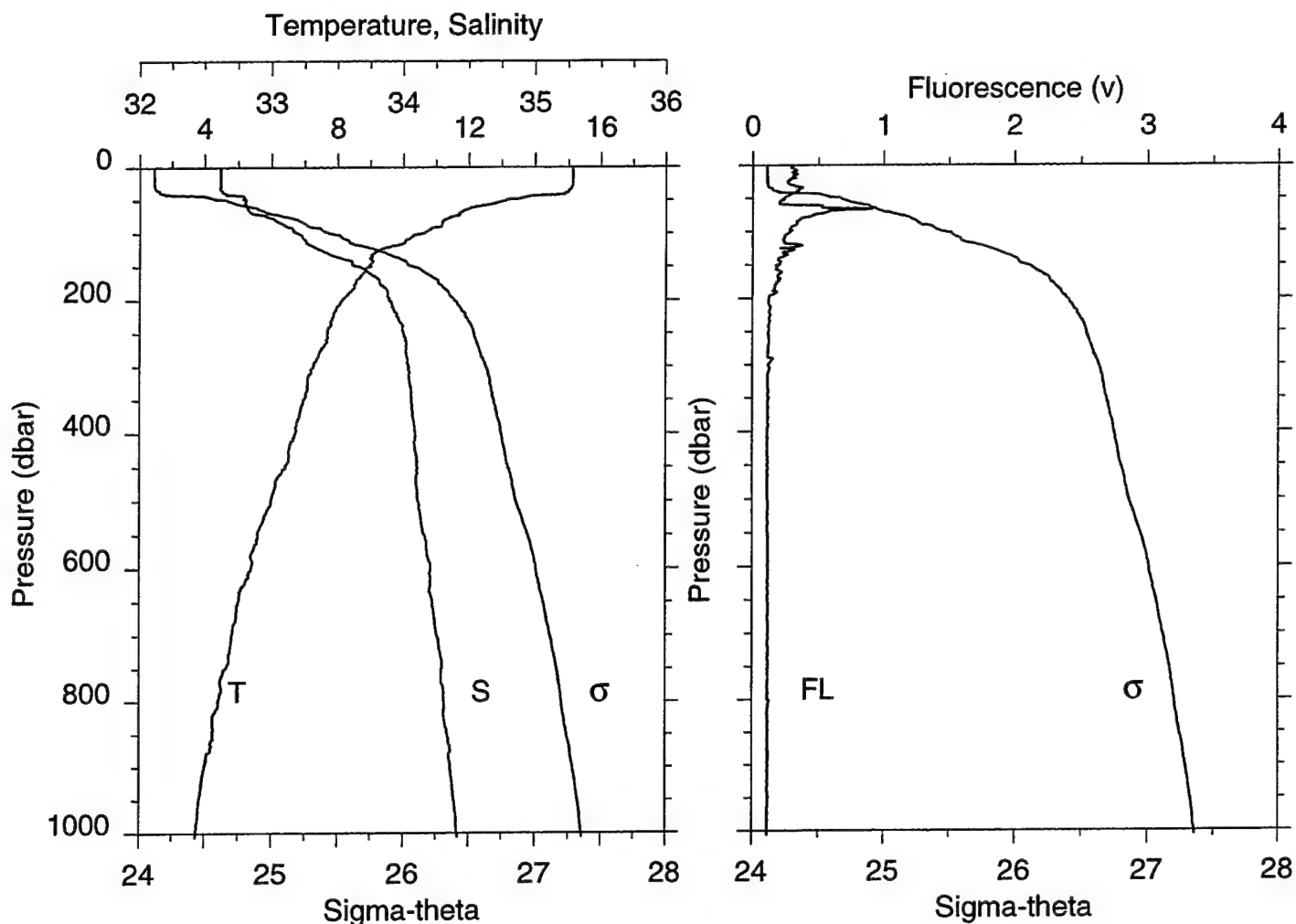
STA NO 18 LAT: 37 55.8 N LONG: 126 27.4 W
04 JUL 1993 2350 GMT DEPTH 4400

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.917	32.768	14.917	24.270	364.4	0.073	0.32
10	14.917	32.767	14.915	24.270	364.6	0.364	0.29
20	14.903	32.767	14.900	24.273	364.6	0.729	0.55
30	14.917	32.767	14.913	24.270	365.1	1.094	0.57
40	12.563	32.760	12.558	24.745	320.1	1.427	1.35
50	11.811	32.785	11.805	24.906	304.9	1.740	2.24
60	11.392	32.874	11.385	25.052	291.2	2.040	1.76
70	11.061	32.956	11.052	25.175	279.7	2.325	0.68
80	10.454	33.201	10.444	25.473	251.5	2.594	0.84
90	9.562	33.357	9.552	25.744	225.9	2.832	0.51
100	9.258	33.416	9.247	25.839	216.9	3.056	0.54
110	9.197	33.455	9.185	25.880	213.3	3.270	0.53
120	9.145	33.610	9.132	26.009	201.2	3.476	0.73
130	8.365	33.525	8.351	26.063	196.0	3.673	0.61
140	8.202	33.597	8.188	26.145	188.5	3.866	1.02
150	8.061	33.665	8.046	26.219	181.5	4.051	0.39
175	7.842	33.798	7.825	26.356	168.9	4.486	0.19
200	7.815	33.922	7.795	26.458	159.7	4.897	0.15
225	7.671	33.961	7.649	26.510	155.2	5.290	0.14
250	7.451	34.008	7.427	26.578	149.1	5.669	0.13
275	7.258	34.028	7.232	26.621	145.2	6.037	0.12
300	7.086	34.038	7.058	26.654	142.5	6.396	0.13
350	6.591	34.053	6.559	26.733	135.4	7.090	0.12
400	6.169	34.087	6.134	26.815	128.0	7.750	0.12
450	5.859	34.126	5.820	26.884	121.8	8.372	0.12
500	5.607	34.175	5.565	26.955	115.6	8.967	0.12
508	5.480	34.162	5.438	26.959	115.1	9.060	0.12



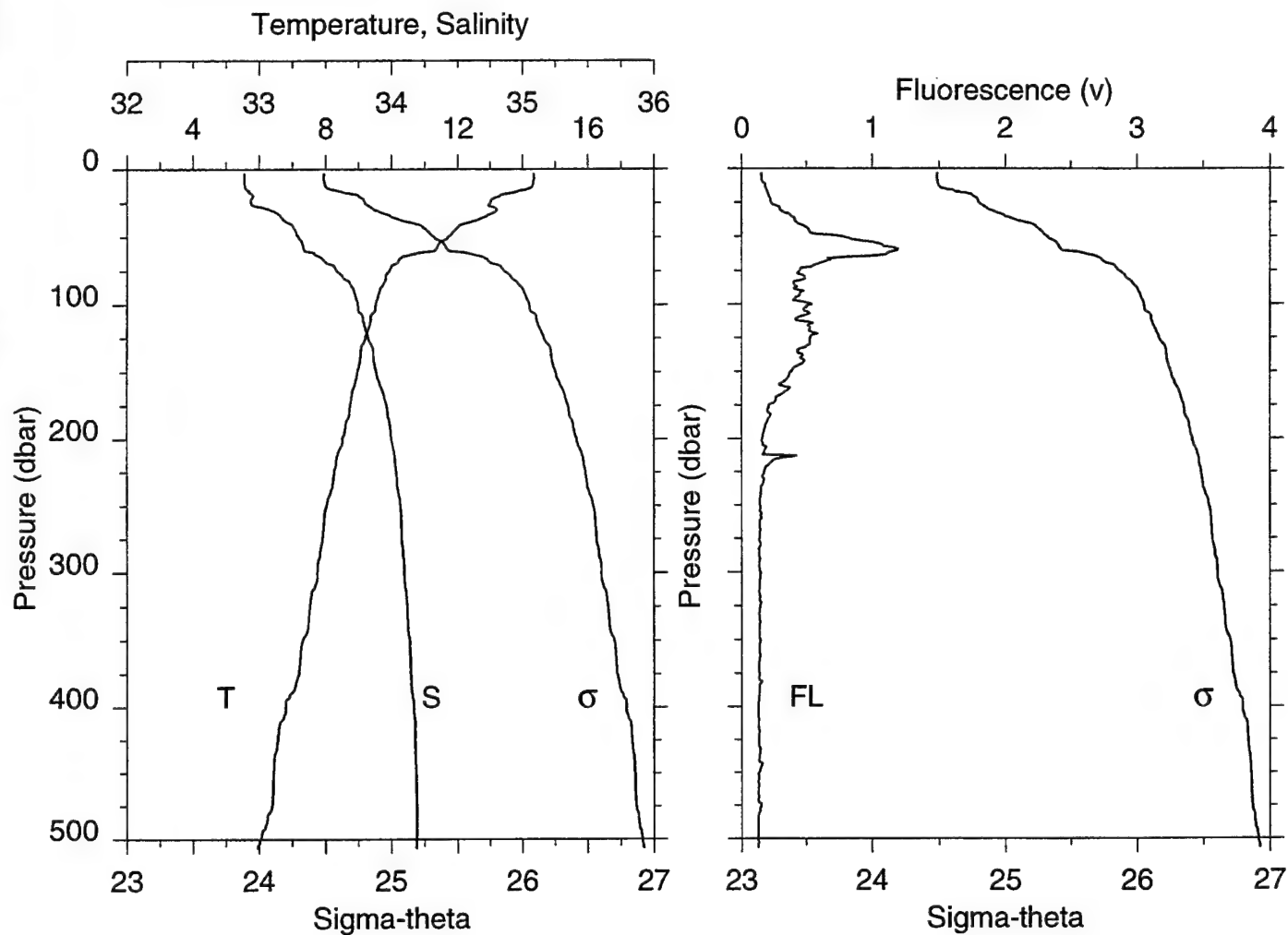
STA NO 19 LAT: 37 58.0 N LONG: 126 34.2 W
05 JUL 1993 557 GMT DEPTH 4400

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.981	32.724	14.980	24.223	368.9	0.074	0.31
10	14.985	32.723	14.983	24.221	369.2	0.369	0.38
20	14.988	32.723	14.985	24.221	369.6	0.738	0.28
30	13.323	32.644	13.319	24.505	342.7	1.101	0.42
40	12.733	32.743	12.728	24.698	324.5	1.438	0.70
50	12.036	32.802	12.030	24.878	307.6	1.753	0.92
60	11.442	32.820	11.434	25.001	296.0	2.056	0.88
70	11.017	32.987	11.008	25.207	276.6	2.345	0.86
80	10.154	33.155	10.145	25.487	250.1	2.609	0.85
90	9.269	33.232	9.259	25.693	230.6	2.849	0.74
100	8.921	33.346	8.910	25.838	217.0	3.072	0.74
110	8.672	33.487	8.660	25.987	203.0	3.282	0.88
120	9.021	33.702	9.008	26.101	192.5	3.480	0.49
130	8.770	33.763	8.757	26.188	184.4	3.668	0.40
140	8.649	33.816	8.635	26.249	178.7	3.849	0.29
150	8.447	33.854	8.432	26.309	173.1	4.025	0.22
175	8.060	33.932	8.043	26.429	162.1	4.441	0.13
200	7.804	33.959	7.784	26.488	156.8	4.841	0.27
225	7.680	34.016	7.658	26.551	151.3	5.226	0.12
250	7.456	34.027	7.432	26.592	147.7	5.600	0.12
275	7.195	34.039	7.169	26.639	143.5	5.963	0.12
300	7.027	34.052	6.999	26.672	140.7	6.319	0.12
350	6.791	34.083	6.759	26.729	135.9	7.009	0.12
400	6.510	34.105	6.474	26.785	131.2	7.678	0.12
450	6.148	34.115	6.108	26.840	126.3	8.321	0.12
500	5.798	34.142	5.755	26.905	120.5	8.937	0.12
506	5.784	34.143	5.741	26.908	120.3	9.010	0.12



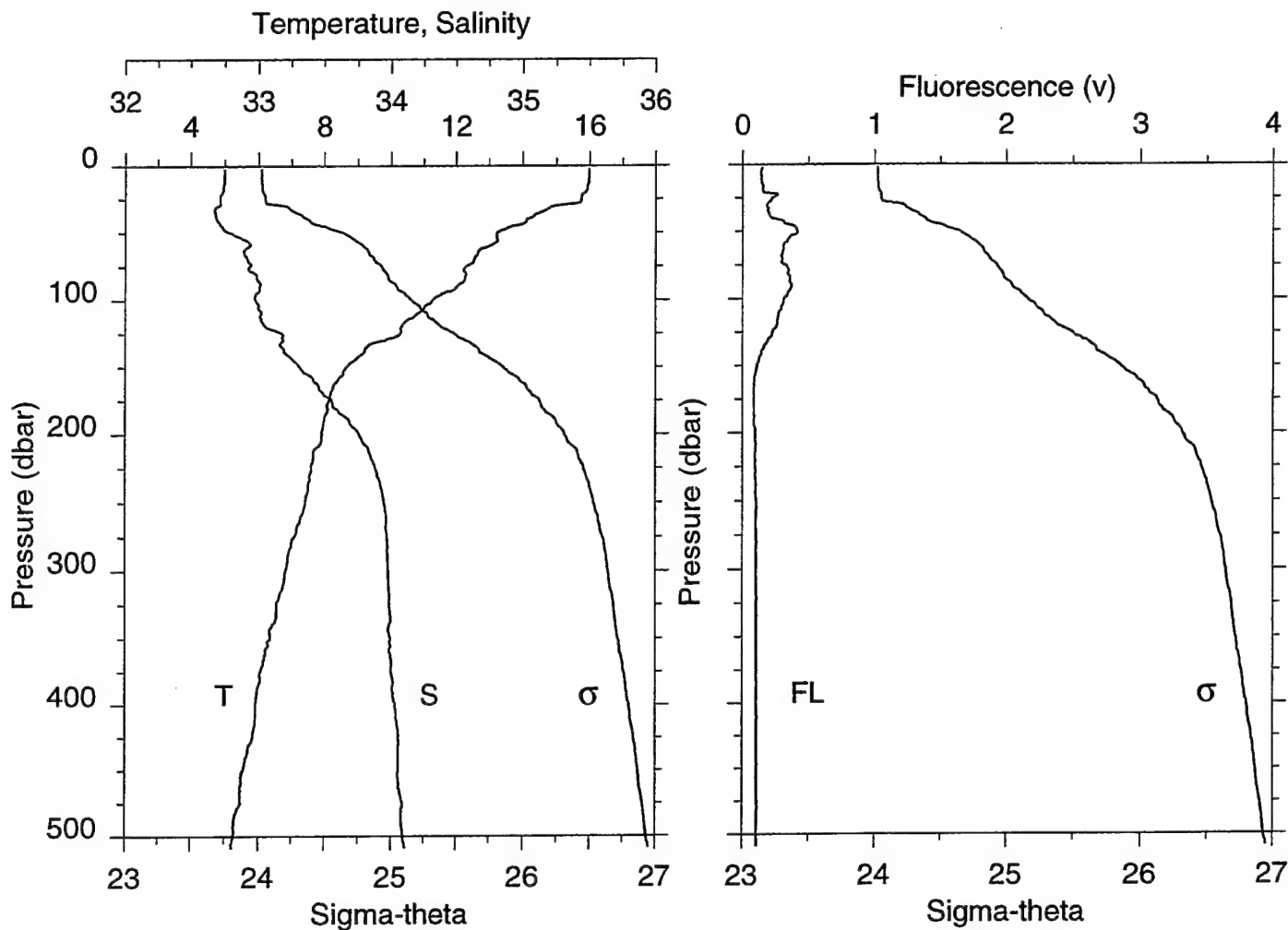
STANO 20 LAT: 37 59.5 N LONG: 126 42.0 W
07 MAY 1993 1156 GMT DEPTH 4400

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.131	32.619	15.131	24.110	379.7	0.076	0.31	175	8.538	33.822	8.520	26.271	177.3	4.879	0.19
10	15.131	32.619	15.130	24.109	379.9	0.380	0.31	200	8.130	33.893	8.109	26.388	166.5	5.307	0.12
20	15.121	32.618	15.118	24.111	380.0	0.760	0.30	225	7.859	33.955	7.836	26.477	158.4	5.712	0.14
30	15.095	32.617	15.091	24.117	379.8	1.140	0.29	250	7.688	34.001	7.663	26.539	152.8	6.099	0.12
40	14.880	32.663	14.874	24.198	372.3	1.517	0.35	275	7.485	34.020	7.459	26.583	149.0	6.477	0.12
50	13.132	32.806	13.126	24.670	327.5	1.863	0.24	300	7.261	34.042	7.233	26.632	144.6	6.844	0.12
60	12.199	32.814	12.191	24.856	310.0	2.183	0.32	350	6.953	34.064	6.921	26.692	139.5	7.554	0.13
70	11.687	32.864	11.678	24.991	297.3	2.486	0.58	400	6.716	34.093	6.679	26.748	134.8	8.239	0.12
80	11.232	33.029	11.222	25.202	277.4	2.772	0.37	450	6.417	34.109	6.377	26.800	130.4	8.903	0.12
90	11.129	33.118	11.119	25.289	269.3	3.045	0.33	500	5.991	34.115	5.948	26.860	124.9	9.539	0.12
100	10.564	33.199	10.552	25.452	254.0	3.305	0.28	600	5.397	34.212	5.347	27.010	111.4	10.713	0.12
110	10.064	33.257	10.052	25.583	241.7	3.552	0.24	700	4.821	34.261	4.765	27.116	101.7	11.778	0.12
120	9.560	33.323	9.547	25.717	229.0	3.790	0.36	800	4.423	34.315	4.361	27.203	93.9	12.753	0.12
130	9.101	33.424	9.087	25.871	214.5	4.011	0.27	900	4.005	34.363	3.938	27.286	86.2	13.655	0.12
140	9.062	33.585	9.047	26.003	202.1	4.219	0.20	1000	3.751	34.414	3.678	27.353	80.3	14.484	0.12
150	8.946	33.672	8.930	26.090	194.1	4.418	0.20	1007	3.731	34.416	3.657	27.356	79.9	14.540	0.12



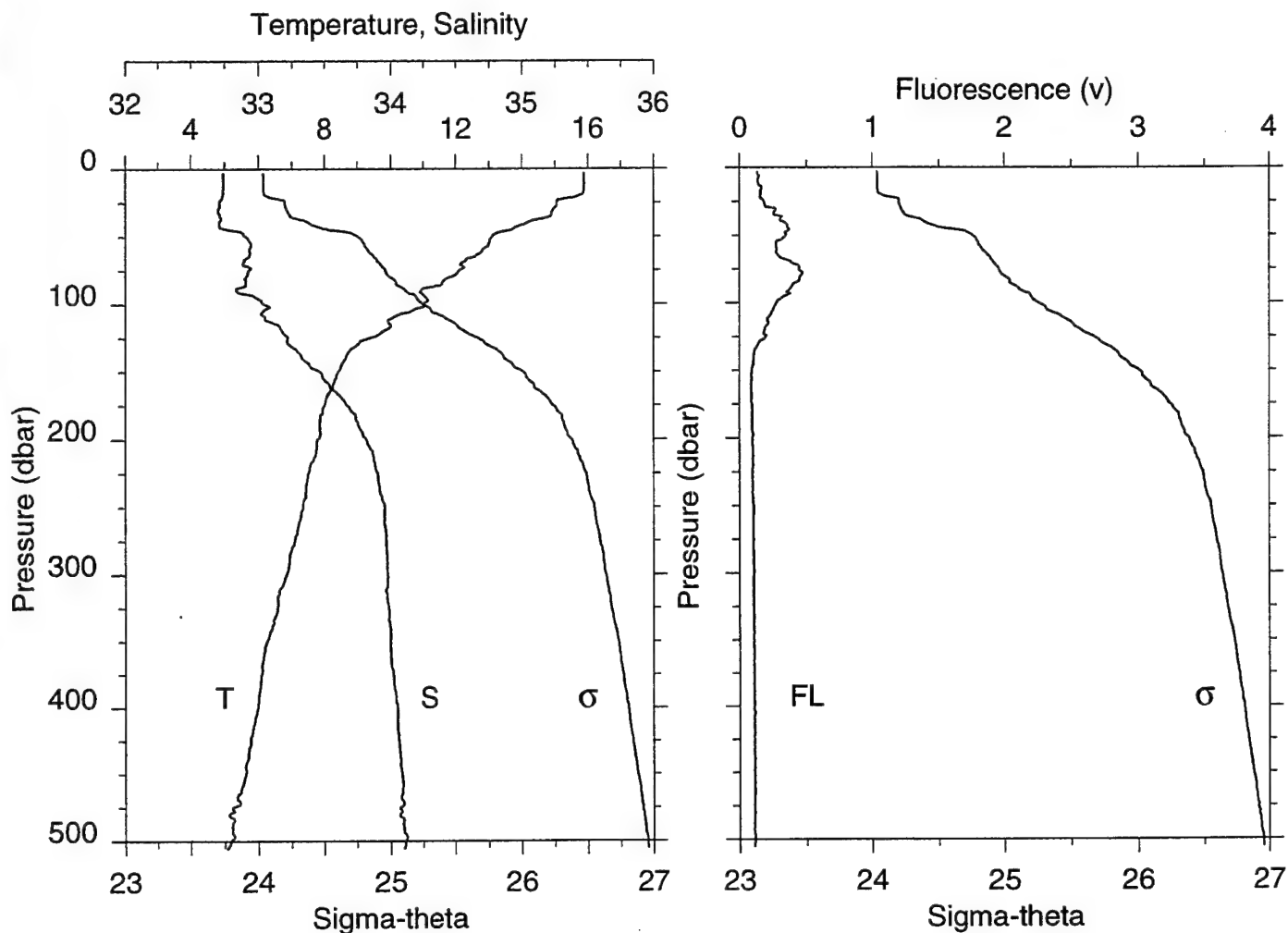
STA NO 21 LAT: 36 45.2 N LONG: 124 20.8 W
07 JUL 1993 1555 GMT DEPTH 3900

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	14.346	32.891	14.346	24.486	343.8	0.103	0.15
10	14.332	32.892	14.330	24.491	343.6	0.344	0.16
20	13.297	32.955	13.294	24.751	319.0	0.679	0.21
30	13.210	33.088	13.206	24.872	307.8	0.992	0.30
40	12.216	33.238	12.211	25.181	278.5	1.287	0.43
50	11.696	33.299	11.690	25.327	264.9	1.557	0.78
60	11.304	33.345	11.296	25.434	254.9	1.816	1.19
70	10.073	33.547	10.065	25.807	219.5	2.048	0.58
80	9.823	33.635	9.814	25.918	209.2	2.262	0.49
90	9.639	33.716	9.629	26.011	200.5	2.466	0.48
100	9.521	33.745	9.510	26.053	196.7	2.665	0.54
110	9.370	33.783	9.358	26.108	191.7	2.859	0.43
120	9.262	33.809	9.249	26.146	188.2	3.049	0.52
130	9.100	33.850	9.086	26.205	182.9	3.236	0.52
140	9.048	33.865	9.033	26.225	181.1	3.417	0.45
150	8.966	33.885	8.950	26.254	178.6	3.597	0.38
175	8.740	33.963	8.722	26.350	169.9	4.032	0.21
200	8.505	34.001	8.484	26.416	163.9	4.450	0.16
225	8.257	34.038	8.234	26.483	158.0	4.851	0.17
250	8.024	34.068	7.999	26.542	152.7	5.241	0.14
275	7.906	34.079	7.878	26.569	150.6	5.619	0.14
300	7.756	34.098	7.726	26.606	147.4	5.991	0.15
350	7.317	34.140	7.284	26.702	138.9	6.709	0.15
400	6.808	34.168	6.771	26.794	130.6	7.388	0.13
450	6.442	34.185	6.401	26.858	125.0	8.023	0.14
500	6.042	34.188	5.998	26.911	120.2	8.640	0.13
507	5.957	34.188	5.914	26.922	119.2	8.723	0.13



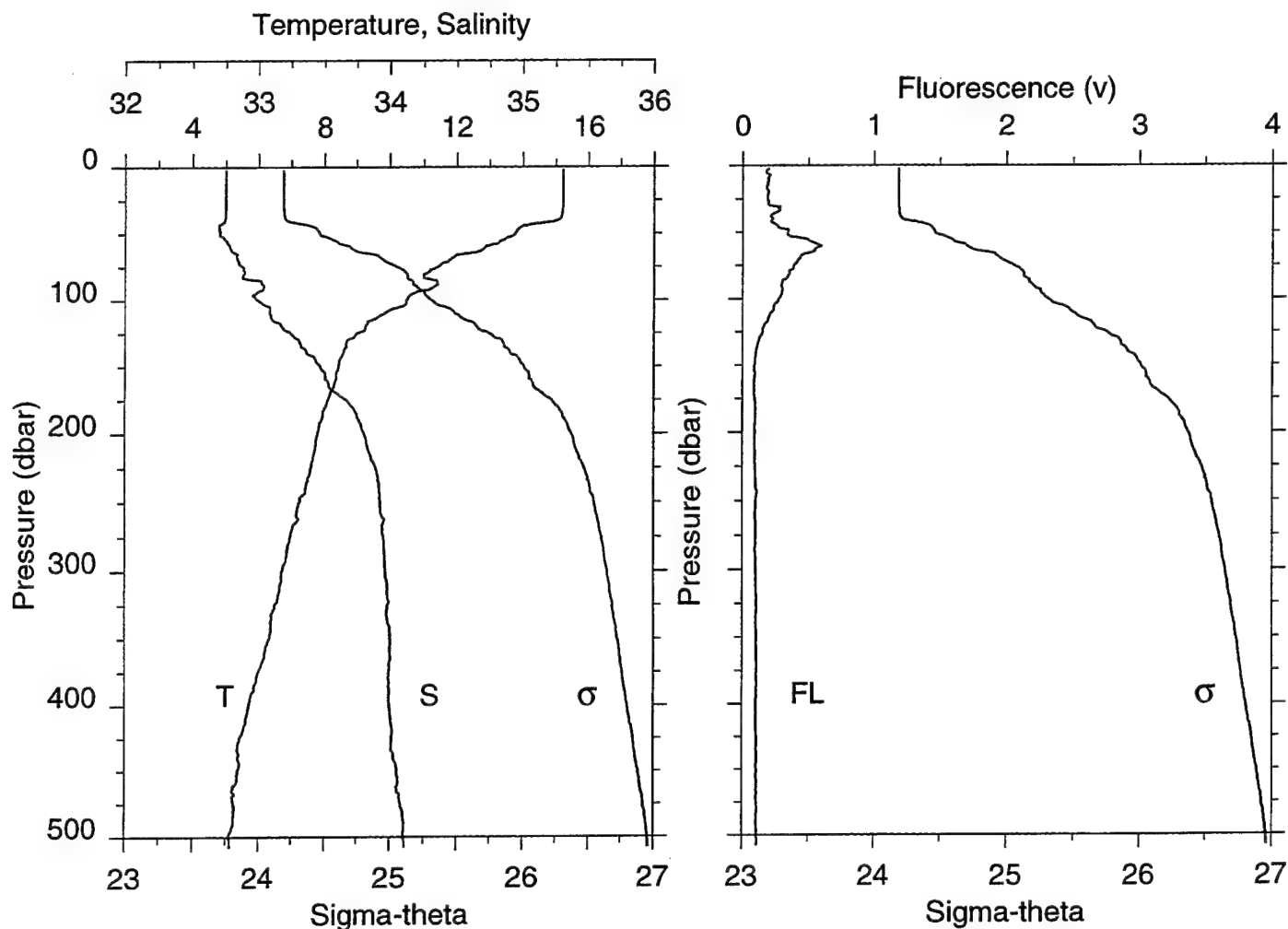
STA NO 22 LAT: 37 17.8 N LONG: 127 0.1 W
09 JUL 1993 429 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.979	32.747	15.978	24.021	388.1	0.078	0.15
10	15.977	32.747	15.976	24.021	388.3	0.388	0.14
20	15.887	32.733	15.884	24.032	387.6	0.776	0.16
30	14.958	32.699	14.954	24.209	371.0	1.161	0.19
40	14.112	32.690	14.106	24.381	354.8	1.524	0.22
50	13.228	32.801	13.221	24.647	329.7	1.869	0.42
60	12.990	32.928	12.982	24.792	316.1	2.191	0.31
70	12.536	32.919	12.527	24.874	308.5	2.503	0.30
80	12.290	32.974	12.280	24.964	300.2	2.808	0.35
90	12.022	33.009	12.010	25.042	293.0	3.105	0.37
100	11.256	32.978	11.244	25.158	282.0	3.392	0.31
110	10.772	33.018	10.759	25.275	271.0	3.669	0.27
120	10.302	33.056	10.288	25.386	260.6	3.935	0.26
130	9.823	33.185	9.809	25.567	243.5	4.187	0.20
140	9.131	33.207	9.116	25.696	231.3	4.423	0.14
150	8.649	33.314	8.634	25.855	216.2	4.646	0.11
175	8.131	33.554	8.114	26.122	191.2	5.153	0.09
200	7.932	33.758	7.912	26.312	173.6	5.609	0.10
225	7.612	33.881	7.590	26.455	160.3	6.024	0.10
250	7.431	33.948	7.407	26.533	153.2	6.415	0.11
275	7.095	33.970	7.069	26.598	147.3	6.791	0.11
300	6.818	33.980	6.790	26.644	143.2	7.153	0.11
350	6.365	33.997	6.334	26.717	136.6	7.853	0.11
400	5.929	34.032	5.895	26.801	129.1	8.517	0.11
450	5.549	34.057	5.512	26.868	123.1	9.148	0.11
500	5.259	34.092	5.218	26.931	117.4	9.749	0.11
509	5.221	34.110	5.180	26.949	115.7	9.854	0.11



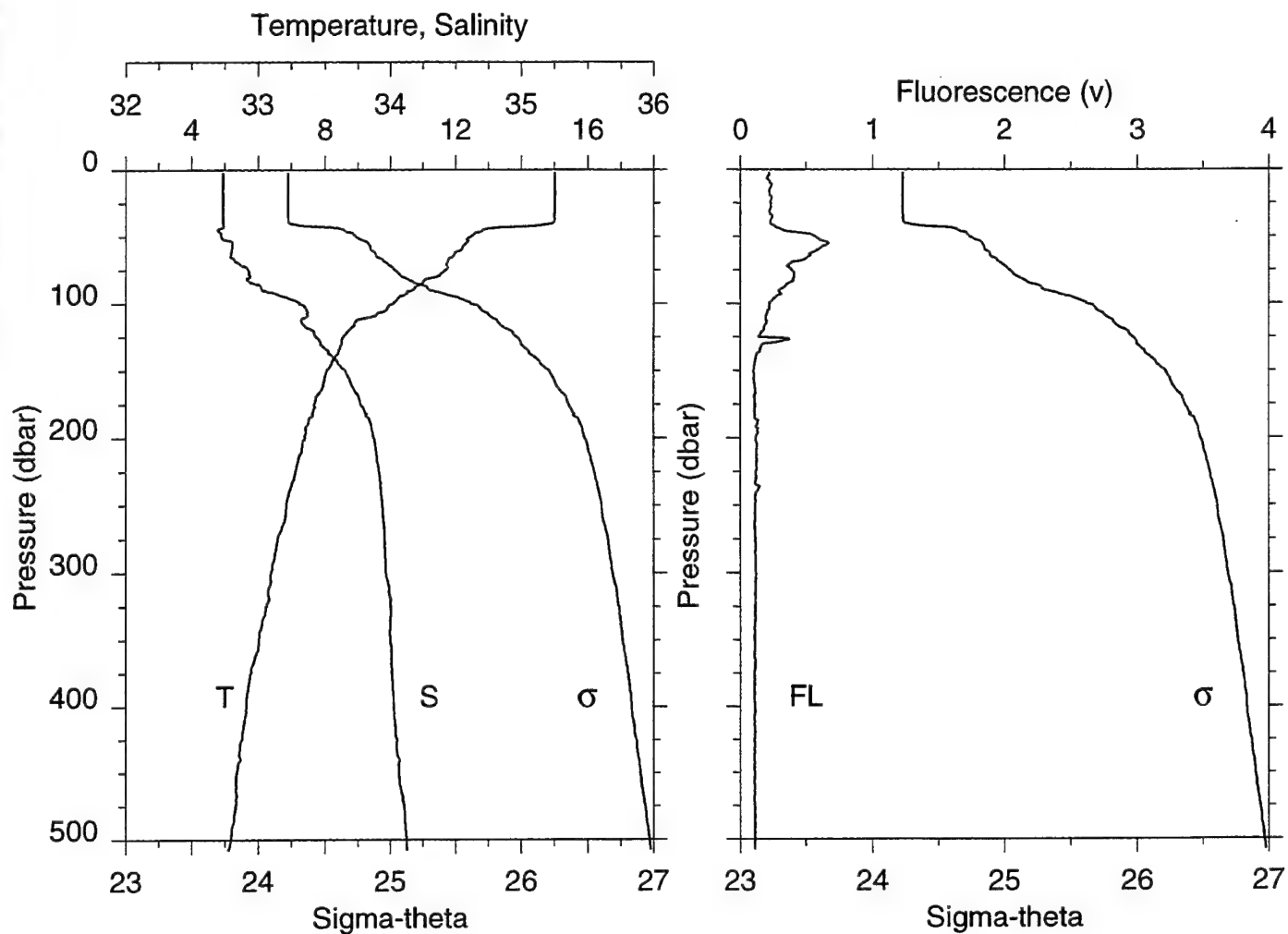
STANO 23 LAT: 37 21.8 N LONG: 126 55.0 W
09 JUL 1993 605 GMT DEPTH 4600

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.884	32.741	15.883	24.038	386.5	0.116	0.14
10	15.884	32.742	15.883	24.038	386.7	0.387	0.14
20	15.724	32.735	15.720	24.069	384.1	0.773	0.16
30	14.960	32.704	14.955	24.213	370.6	1.147	0.26
40	14.157	32.712	14.152	24.389	354.1	1.512	0.33
50	13.108	32.914	13.101	24.758	319.1	1.848	0.34
60	12.810	32.933	12.802	24.832	312.3	2.163	0.28
70	12.180	32.888	12.171	24.918	304.3	2.471	0.38
80	11.828	32.906	11.818	24.998	296.9	2.772	0.46
90	10.933	32.843	10.922	25.111	286.3	3.064	0.37
100	11.040	33.047	11.028	25.251	273.2	3.343	0.28
110	10.057	33.051	10.045	25.423	256.8	3.608	0.22
120	9.772	33.181	9.759	25.572	242.8	3.858	0.19
130	9.004	33.235	8.990	25.738	227.1	4.092	0.14
140	8.658	33.329	8.643	25.866	215.0	4.312	0.11
150	8.429	33.468	8.414	26.009	201.5	4.520	0.09
175	8.004	33.675	7.986	26.235	180.4	4.998	0.09
200	7.792	33.820	7.772	26.381	167.0	5.431	0.10
225	7.505	33.905	7.483	26.489	157.1	5.837	0.10
250	7.352	33.954	7.328	26.549	151.7	6.224	0.10
275	7.098	33.965	7.073	26.594	147.7	6.598	0.10
300	6.842	33.977	6.815	26.639	143.7	6.962	0.11
350	6.252	33.997	6.222	26.732	135.2	7.660	0.11
400	5.986	34.049	5.952	26.807	128.5	8.320	0.11
450	5.625	34.083	5.587	26.879	122.0	8.947	0.11
500	5.181	34.110	5.141	26.954	115.1	9.539	0.11
506	5.070	34.097	5.030	26.956	114.8	9.608	0.11



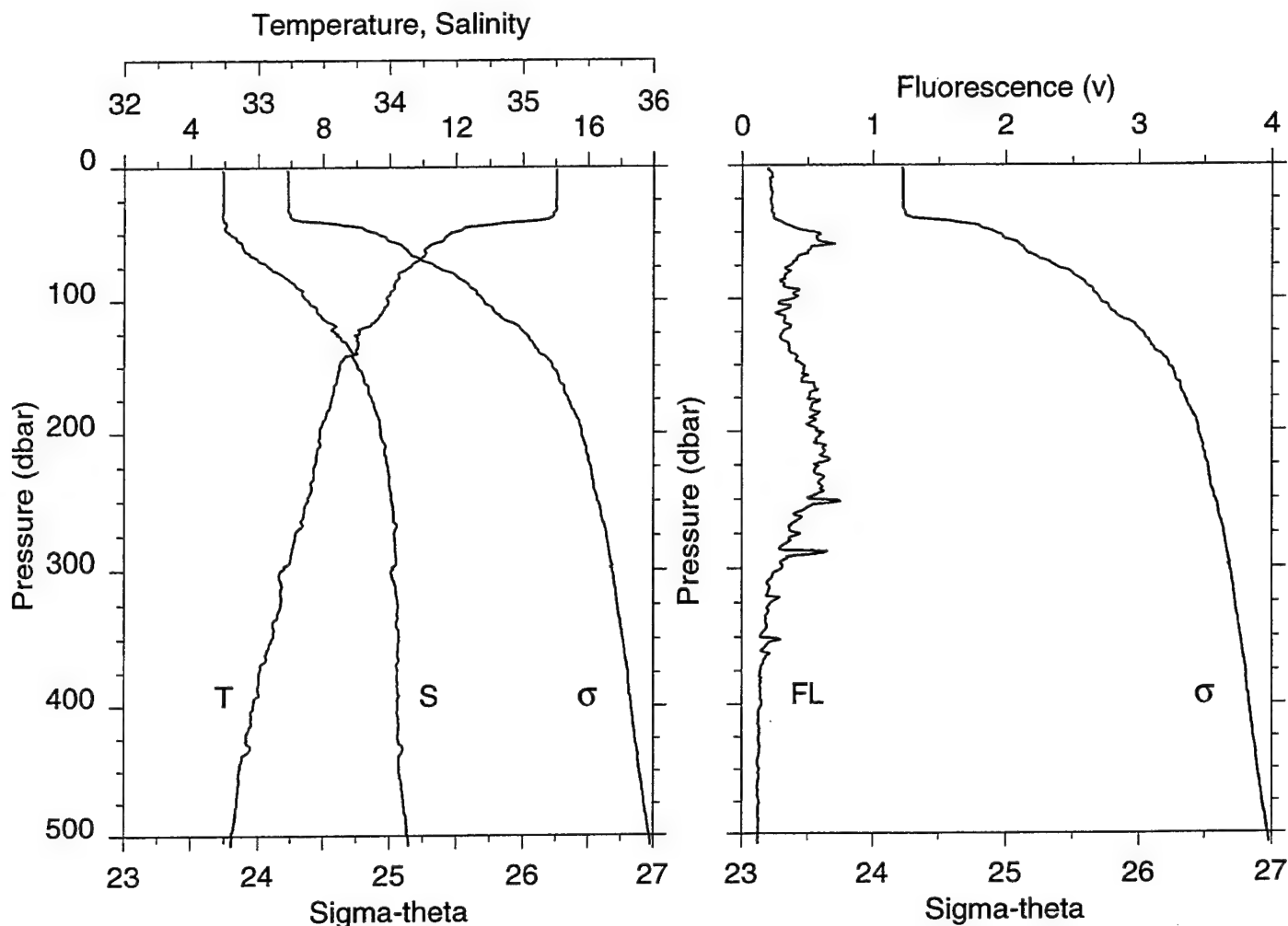
STA NO 24 LAT: 37 25.4 N LONG: 126 50.0 W
 09 JUL 1993 734 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.218	32.747	15.218	24.189	372.1	0.074	0.20
10	15.222	32.748	15.221	24.189	372.3	0.372	0.19
20	15.220	32.748	15.217	24.190	372.5	0.745	0.20
30	15.218	32.747	15.214	24.190	372.8	1.117	0.20
40	15.068	32.740	15.062	24.217	370.5	1.489	0.23
50	13.771	32.704	13.764	24.462	347.4	1.844	0.34
60	12.874	32.779	12.866	24.699	324.9	2.181	0.59
70	11.757	32.840	11.748	24.959	300.3	2.493	0.43
80	11.044	32.888	11.035	25.126	284.6	2.784	0.35
90	11.282	33.038	11.271	25.200	277.9	3.066	0.29
100	10.482	33.001	10.470	25.312	267.2	3.339	0.28
110	9.835	33.087	9.823	25.489	250.5	3.597	0.22
120	9.265	33.180	9.252	25.653	235.0	3.839	0.17
130	8.699	33.308	8.685	25.842	217.1	4.066	0.13
140	8.569	33.366	8.555	25.908	211.0	4.280	0.10
150	8.425	33.466	8.410	26.009	201.6	4.485	0.09
175	8.091	33.674	8.074	26.222	181.7	4.970	0.10
200	7.793	33.807	7.774	26.370	168.0	5.405	0.10
225	7.588	33.898	7.566	26.471	158.8	5.815	0.10
250	7.243	33.930	7.219	26.546	152.0	6.203	0.10
275	6.974	33.955	6.948	26.603	146.8	6.577	0.10
300	6.727	33.970	6.700	26.648	142.7	6.939	0.10
350	6.327	34.002	6.297	26.727	135.7	7.636	0.11
400	5.715	34.001	5.682	26.803	128.7	8.298	0.11
450	5.366	34.053	5.330	26.887	121.1	8.922	0.11
500	5.097	34.101	5.057	26.956	114.8	9.512	0.11
508	5.133	34.112	5.092	26.961	114.5	9.603	0.11



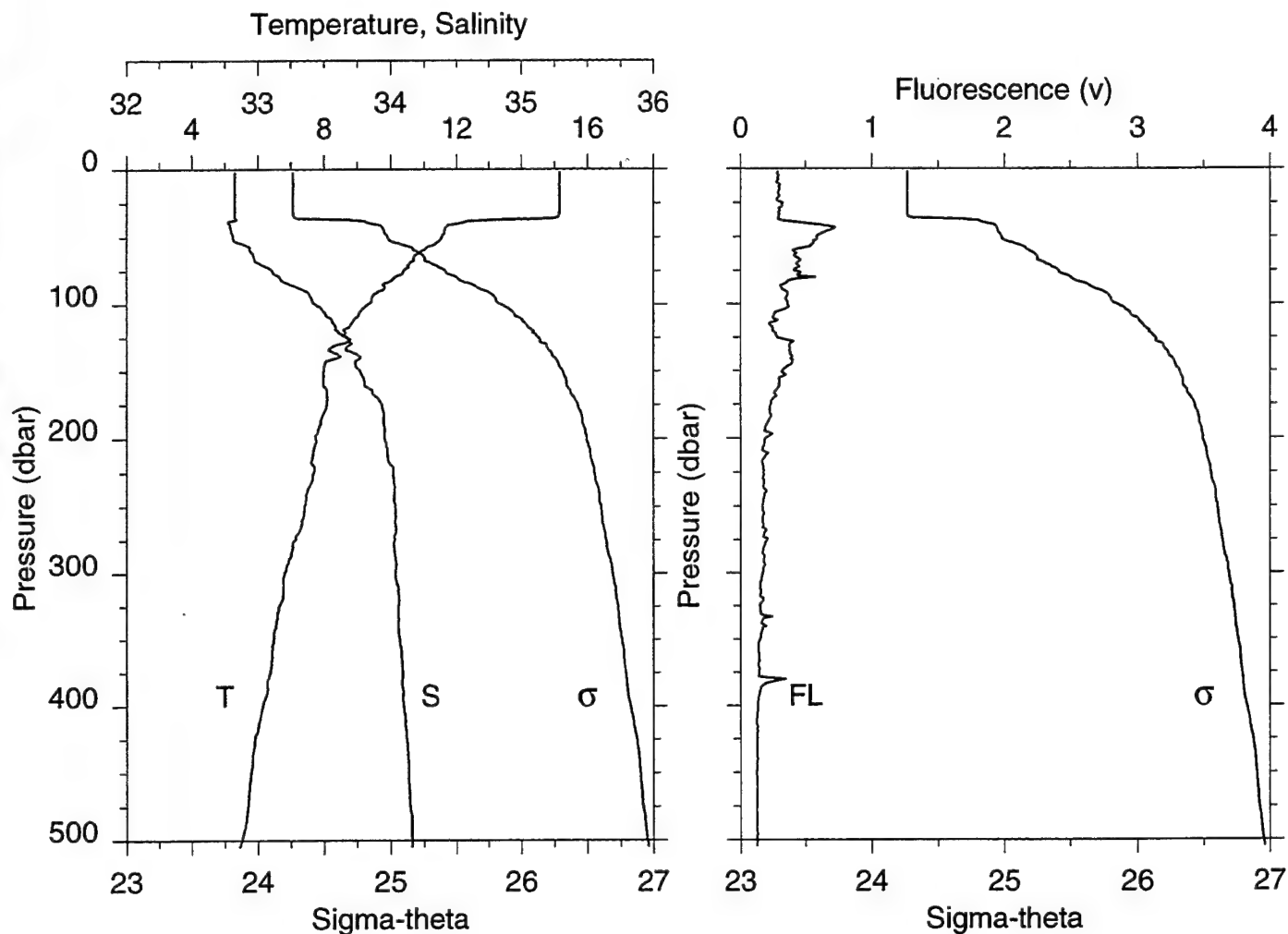
STA NO 25 LAT: 37 29.3 N LONG: 126 45.0 W
09 JUL 1993 905 GMT DEPTH 4600

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.014	32.737	15.013	24.226	368.6	0.074	0.22
10	15.013	32.737	15.012	24.226	368.8	0.369	0.23
20	15.020	32.737	15.017	24.225	369.2	0.738	0.24
30	15.017	32.737	15.013	24.226	369.4	1.107	0.23
40	14.944	32.740	14.938	24.244	367.9	1.476	0.23
50	12.469	32.725	12.462	24.736	321.2	1.812	0.57
60	12.181	32.802	12.174	24.850	310.5	2.126	0.58
70	11.731	32.859	11.722	24.979	298.5	2.431	0.38
80	11.401	32.940	11.392	25.102	286.9	2.723	0.41
90	10.671	33.039	10.661	25.309	267.4	3.000	0.30
100	10.093	33.307	10.082	25.617	238.2	3.250	0.22
110	9.376	33.358	9.364	25.775	223.3	3.480	0.19
120	8.703	33.410	8.690	25.922	209.4	3.697	0.18
130	8.499	33.464	8.486	25.996	202.5	3.902	0.18
140	8.293	33.562	8.279	26.104	192.4	4.099	0.12
150	8.043	33.654	8.028	26.213	182.1	4.287	0.10
175	7.675	33.772	7.658	26.359	168.5	4.725	0.12
200	7.401	33.873	7.382	26.478	157.6	5.131	0.12
225	7.119	33.915	7.098	26.551	151.0	5.516	0.12
250	6.856	33.939	6.833	26.606	146.0	5.887	0.12
275	6.593	33.956	6.569	26.654	141.7	6.248	0.12
300	6.400	33.967	6.373	26.689	138.6	6.598	0.12
350	6.017	33.999	5.987	26.763	132.0	7.272	0.11
400	5.652	34.029	5.619	26.832	125.9	7.915	0.11
450	5.364	34.069	5.327	26.899	119.9	8.529	0.11
500	5.179	34.127	5.139	26.967	113.8	9.113	0.11
508	5.101	34.128	5.061	26.977	112.9	9.204	0.11



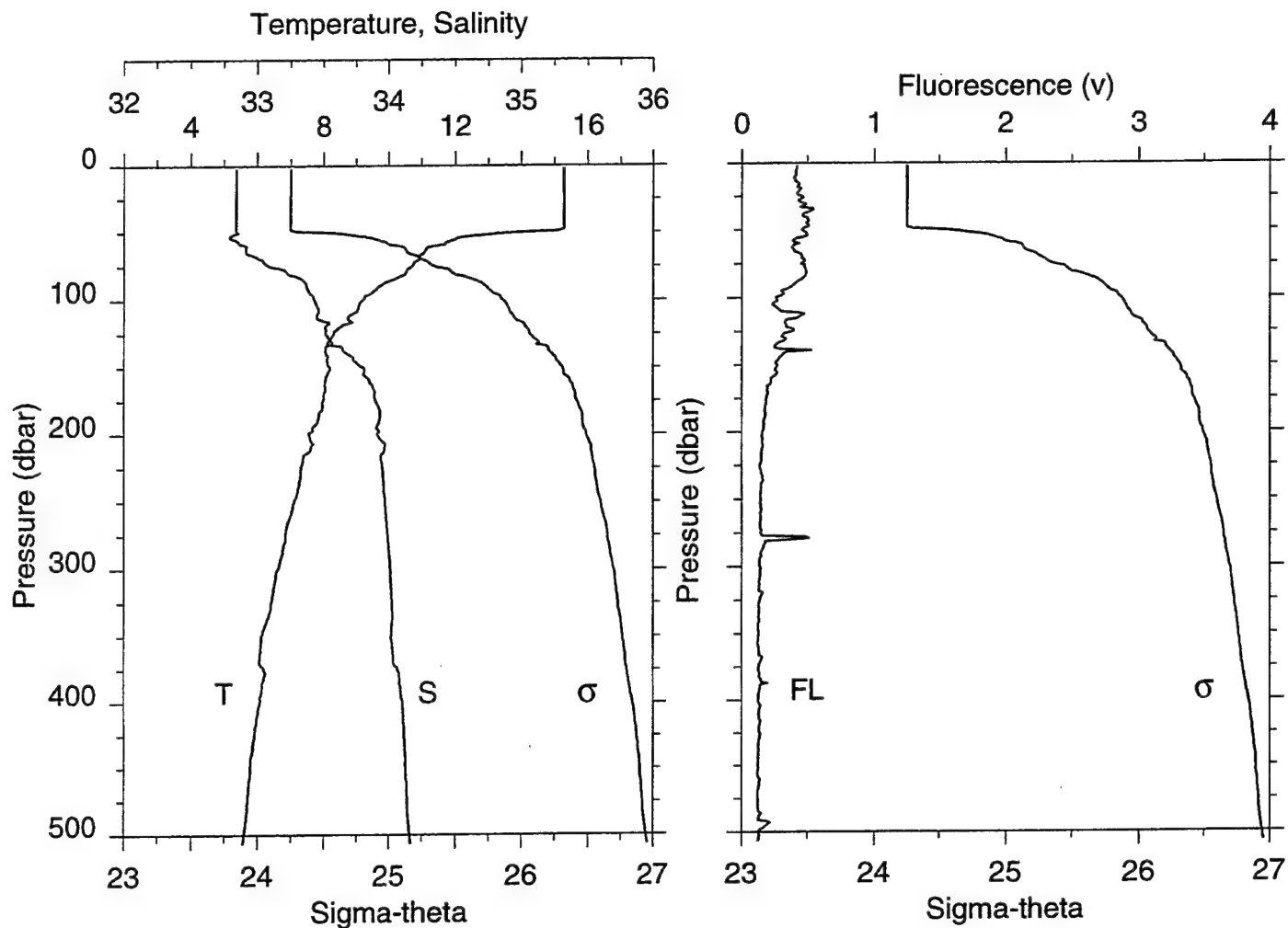
STAN NO 26 LAT: 37 33.6 N LONG: 126 40.2 W
09 JUL 1993 1132 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.024	32.732	15.024	24.219	369.2	0.074	0.20
10	15.026	32.742	15.024	24.227	368.7	0.369	0.21
20	15.024	32.741	15.021	24.227	369.0	0.738	0.23
30	15.022	32.741	15.018	24.228	369.2	1.107	0.22
40	14.529	32.744	14.523	24.336	359.2	1.474	0.25
50	11.809	32.792	11.803	24.912	304.4	1.796	0.54
60	11.135	32.884	11.128	25.106	286.0	2.091	0.61
70	10.847	33.000	10.839	25.247	272.8	2.371	0.41
80	10.251	33.176	10.242	25.487	250.1	2.633	0.35
90	10.122	33.298	10.111	25.605	239.2	2.877	0.31
100	9.951	33.387	9.940	25.703	230.0	3.111	0.39
110	9.741	33.467	9.728	25.801	220.9	3.336	0.28
120	9.236	33.584	9.223	25.974	204.6	3.550	0.37
130	9.013	33.639	8.999	26.053	197.2	3.750	0.29
140	9.029	33.736	9.014	26.127	190.4	3.944	0.36
150	8.491	33.759	8.476	26.228	180.8	4.128	0.46
175	8.251	33.866	8.233	26.349	169.8	4.565	0.51
200	7.901	33.932	7.881	26.452	160.3	4.976	0.57
225	7.718	33.988	7.696	26.524	153.9	5.369	0.55
250	7.525	34.015	7.501	26.573	149.5	5.750	0.52
275	7.145	34.034	7.119	26.642	143.2	6.115	0.44
300	6.693	34.014	6.666	26.687	139.0	6.468	0.30
350	6.410	34.068	6.379	26.768	131.9	7.146	0.14
400	5.860	34.060	5.826	26.831	126.1	7.790	0.15
450	5.433	34.072	5.396	26.894	120.5	8.406	0.13
500	5.227	34.135	5.187	26.968	113.9	8.992	0.12
508	5.207	34.145	5.166	26.978	112.9	9.083	0.12



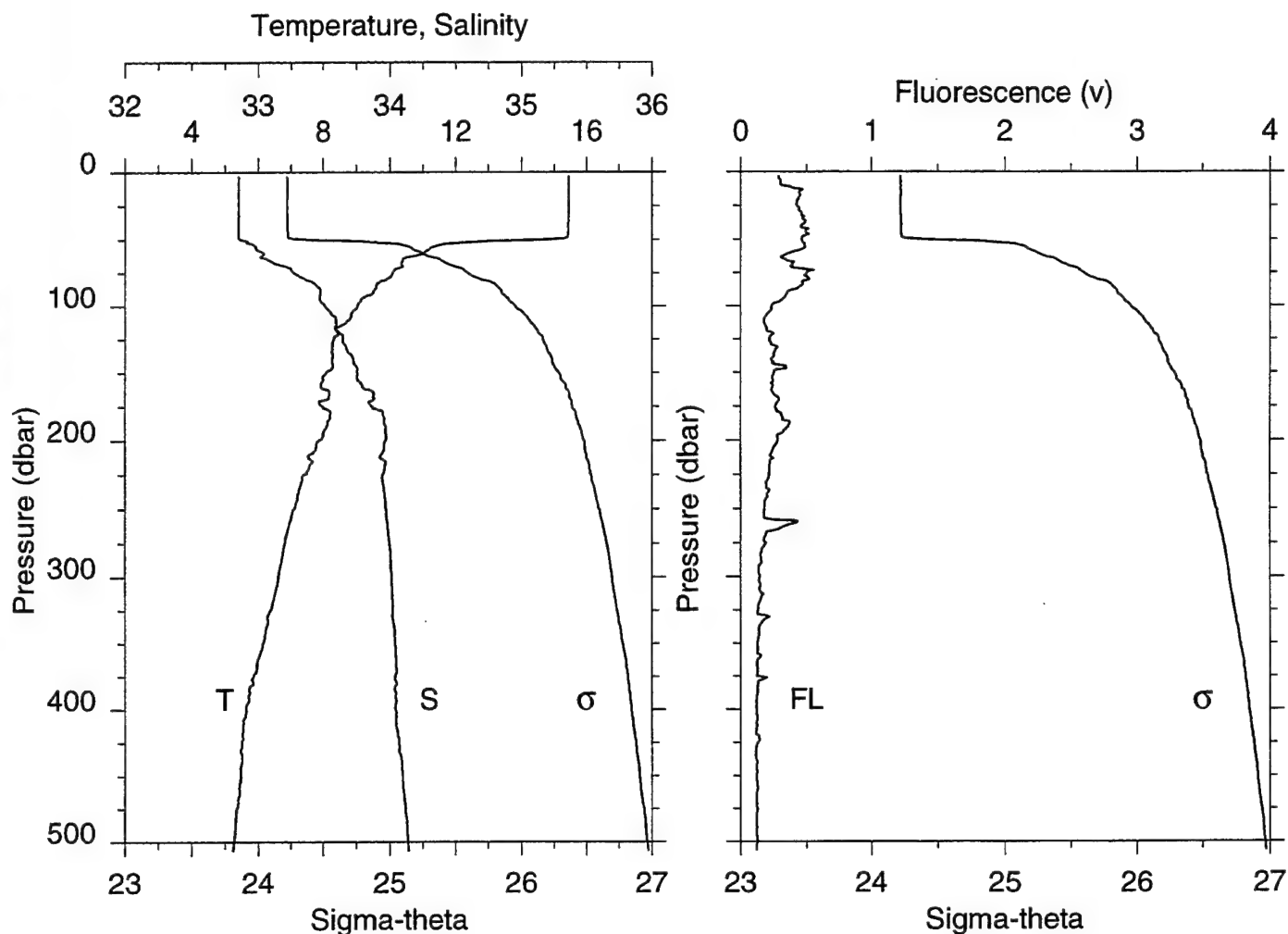
STA NO 27 LAT: 37 36.8 N LONG: 126 35.0 W
09 JUL 1993 1252 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.146	32.826	15.146	24.266	364.8	0.073	0.29
10	15.147	32.827	15.146	24.266	365.0	0.365	0.28
20	15.151	32.827	15.148	24.266	365.3	0.730	0.30
30	15.156	32.827	15.152	24.265	365.7	1.096	0.30
40	12.010	32.788	12.005	24.871	308.0	1.443	0.50
50	11.537	32.814	11.530	24.979	297.9	1.744	0.58
60	10.928	32.945	10.921	25.190	278.0	2.032	0.40
70	10.549	33.030	10.541	25.323	265.6	2.304	0.43
80	10.104	33.168	10.095	25.506	248.4	2.561	0.57
90	9.627	33.369	9.617	25.742	226.0	2.800	0.35
100	9.298	33.439	9.288	25.850	215.9	3.021	0.37
110	8.939	33.548	8.928	25.993	202.5	3.230	0.25
120	8.604	33.609	8.592	26.093	193.1	3.428	0.25
130	8.393	33.694	8.380	26.192	183.9	3.618	0.38
140	8.383	33.774	8.368	26.257	177.9	3.799	0.40
150	7.993	33.775	7.978	26.315	172.4	3.974	0.33
175	8.077	33.935	8.059	26.429	162.1	4.394	0.24
200	7.748	33.956	7.729	26.494	156.2	4.791	0.20
225	7.687	34.020	7.665	26.553	151.1	5.175	0.18
250	7.414	34.035	7.390	26.605	146.5	5.547	0.17
275	7.120	34.031	7.094	26.642	143.2	5.909	0.21
300	6.815	34.038	6.788	26.690	138.9	6.262	0.17
350	6.481	34.070	6.449	26.760	132.7	6.940	0.15
400	6.150	34.098	6.115	26.826	127.0	7.591	0.13
450	5.790	34.134	5.752	26.900	120.3	8.206	0.12
500	5.523	34.157	5.482	26.950	115.9	8.798	0.13
505	5.461	34.157	5.419	26.958	115.2	8.856	0.13



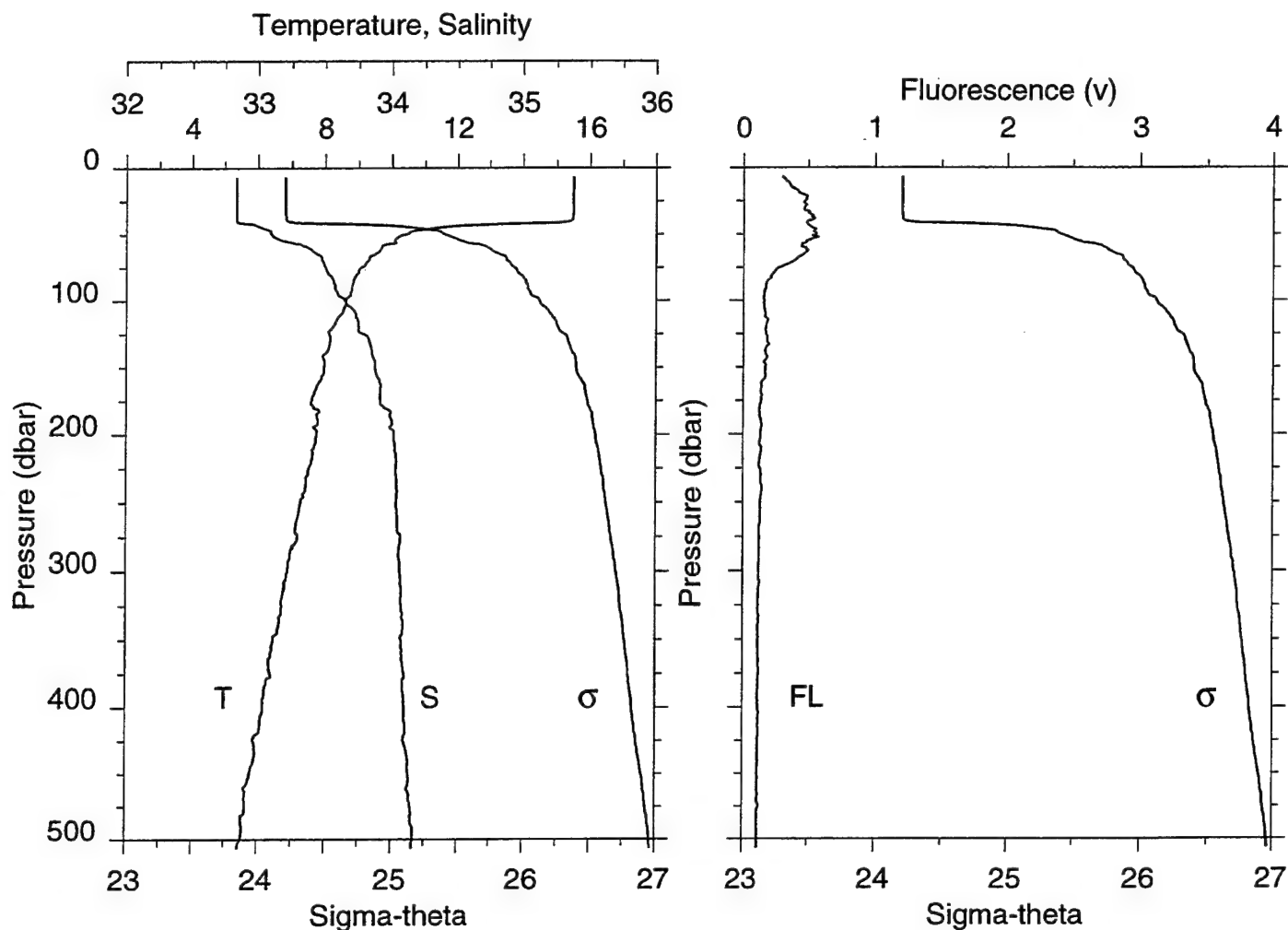
STA NO 28 LAT: 37 40.5 N LONG: 126 30.0 W
09 JUL 1993 1450 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.279	32.842	15.278	24.249	366.4	0.073	0.42
10	15.282	32.842	15.281	24.249	366.6	0.366	0.41
20	15.283	32.842	15.280	24.249	366.9	0.733	0.44
30	15.288	32.842	15.284	24.248	367.3	1.100	0.46
40	15.290	32.843	15.284	24.248	367.6	1.468	0.46
50	13.923	32.856	13.916	24.549	339.1	1.834	0.46
60	11.411	32.922	11.404	25.086	288.0	2.142	0.44
70	10.932	33.040	10.924	25.263	271.3	2.422	0.46
80	10.514	33.228	10.504	25.483	250.6	2.683	0.49
90	9.664	33.370	9.654	25.737	226.5	2.920	0.40
100	9.184	33.431	9.173	25.863	214.7	3.141	0.26
110	8.879	33.450	8.867	25.926	208.8	3.352	0.30
120	8.453	33.511	8.440	26.039	198.2	3.556	0.34
130	8.153	33.556	8.140	26.120	190.6	3.751	0.34
140	8.074	33.689	8.060	26.236	179.8	3.936	0.34
150	8.186	33.805	8.171	26.310	173.0	4.112	0.27
175	7.973	33.899	7.956	26.416	163.3	4.531	0.19
200	7.550	33.912	7.531	26.488	156.8	4.930	0.16
225	7.311	33.950	7.290	26.551	151.0	5.314	0.14
250	7.105	33.970	7.081	26.596	147.1	5.687	0.14
275	6.844	33.993	6.819	26.651	142.2	6.049	0.14
300	6.618	34.014	6.591	26.697	138.0	6.400	0.14
350	6.129	34.019	6.099	26.765	132.0	7.074	0.13
400	6.085	34.107	6.051	26.841	125.5	7.720	0.13
450	5.795	34.130	5.757	26.896	120.7	8.334	0.12
500	5.607	34.160	5.565	26.943	116.7	8.929	0.13
507	5.564	34.168	5.521	26.955	115.6	9.010	0.12



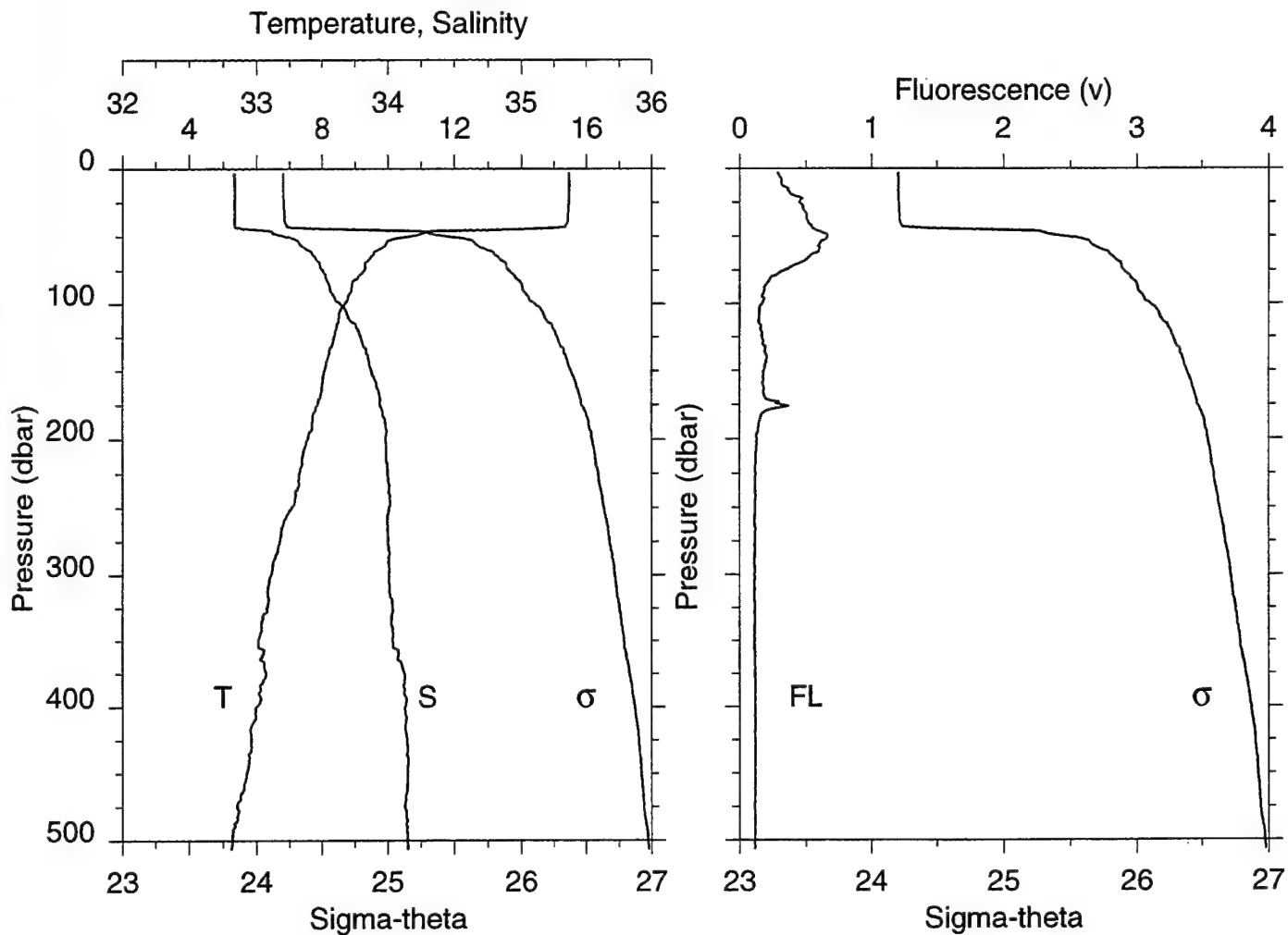
STA NO 29 LAT: 37 47.8 N LONG: 126 19.9 W
09 JUL 1993 1657 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.451	32.853	15.450	24.220	369.2	0.111	0.29
10	15.448	32.853	15.446	24.221	369.3	0.369	0.31
20	15.449	32.853	15.446	24.220	369.6	0.739	0.44
30	15.451	32.852	15.447	24.220	370.0	1.108	0.46
40	15.432	32.852	15.426	24.224	369.9	1.478	0.46
50	14.586	32.873	14.579	24.424	351.1	1.847	0.46
60	11.048	33.041	11.041	25.244	273.0	2.137	0.38
70	10.396	33.215	10.388	25.493	249.4	2.398	0.38
80	9.880	33.368	9.871	25.699	229.9	2.637	0.52
90	9.495	33.481	9.485	25.851	215.6	2.857	0.35
100	9.031	33.516	9.020	25.953	206.1	3.068	0.24
110	8.802	33.597	8.791	26.053	196.8	3.269	0.18
120	8.447	33.624	8.435	26.128	189.7	3.461	0.24
130	8.285	33.671	8.272	26.190	184.0	3.648	0.26
140	8.286	33.728	8.272	26.235	180.0	3.830	0.23
150	8.093	33.757	8.078	26.286	175.2	4.008	0.25
175	7.999	33.874	7.982	26.393	165.5	4.432	0.26
200	7.868	33.965	7.848	26.484	157.3	4.835	0.28
225	7.393	33.947	7.372	26.538	152.4	5.224	0.22
250	7.090	33.970	7.066	26.598	146.9	5.598	0.18
275	6.816	33.996	6.791	26.656	141.6	5.958	0.19
300	6.609	34.012	6.582	26.697	138.1	6.307	0.15
350	6.143	34.041	6.112	26.781	130.5	6.980	0.13
400	5.639	34.043	5.605	26.846	124.6	7.615	0.12
450	5.487	34.098	5.450	26.908	119.2	8.223	0.12
500	5.273	34.136	5.233	26.963	114.3	8.806	0.13
507	5.234	34.141	5.193	26.972	113.5	8.886	0.12



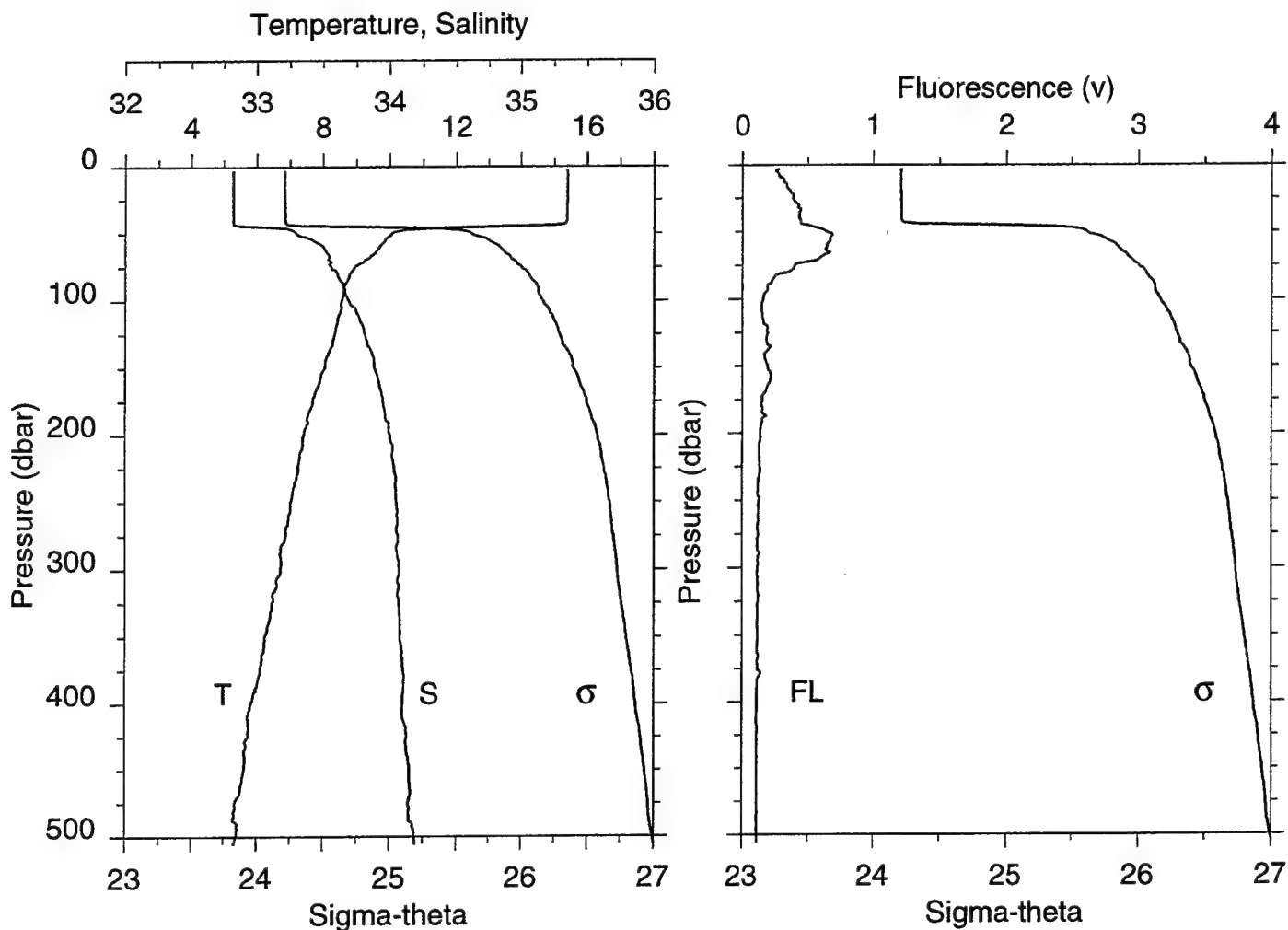
STANO 30 LAT: 37 51.8 N LONG: 126 15.1 W
09 JUL 1993 1819 GMT DEPTH 4450

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
7	15.493	32.837	15.492	24.199	371.3	0.260	0.30
10	15.493	32.837	15.491	24.199	371.4	0.371	0.33
20	15.486	32.838	15.483	24.201	371.5	0.743	0.46
30	15.488	32.838	15.484	24.201	371.8	1.114	0.47
40	15.388	32.841	15.382	24.226	369.7	1.486	0.50
50	10.356	33.102	10.350	25.411	256.7	1.777	0.56
60	9.678	33.381	9.672	25.743	225.3	2.019	0.48
70	9.261	33.482	9.254	25.889	211.6	2.236	0.39
80	8.938	33.530	8.929	25.979	203.2	2.444	0.23
90	8.800	33.573	8.791	26.034	198.2	2.643	0.18
100	8.612	33.647	8.601	26.121	190.1	2.838	0.17
110	8.469	33.729	8.458	26.208	182.0	3.024	0.17
120	8.213	33.750	8.201	26.262	177.0	3.203	0.18
130	8.143	33.828	8.130	26.334	170.3	3.377	0.19
140	7.957	33.852	7.943	26.381	166.0	3.545	0.17
150	7.968	33.874	7.953	26.397	164.7	3.710	0.17
175	7.594	33.915	7.577	26.483	156.8	4.111	0.14
200	7.746	34.018	7.726	26.543	151.6	4.495	0.14
225	7.516	34.033	7.494	26.588	147.7	4.869	0.13
250	7.275	34.036	7.251	26.625	144.5	5.235	0.14
275	7.185	34.070	7.159	26.665	141.1	5.592	0.13
300	6.894	34.064	6.866	26.700	137.9	5.940	0.13
350	6.466	34.077	6.435	26.767	132.0	6.613	0.12
400	6.175	34.100	6.140	26.824	127.1	7.261	0.12
450	5.785	34.131	5.746	26.897	120.5	7.881	0.12
500	5.522	34.167	5.481	26.958	115.1	8.469	0.12
507	5.440	34.162	5.399	26.964	114.5	8.549	0.12



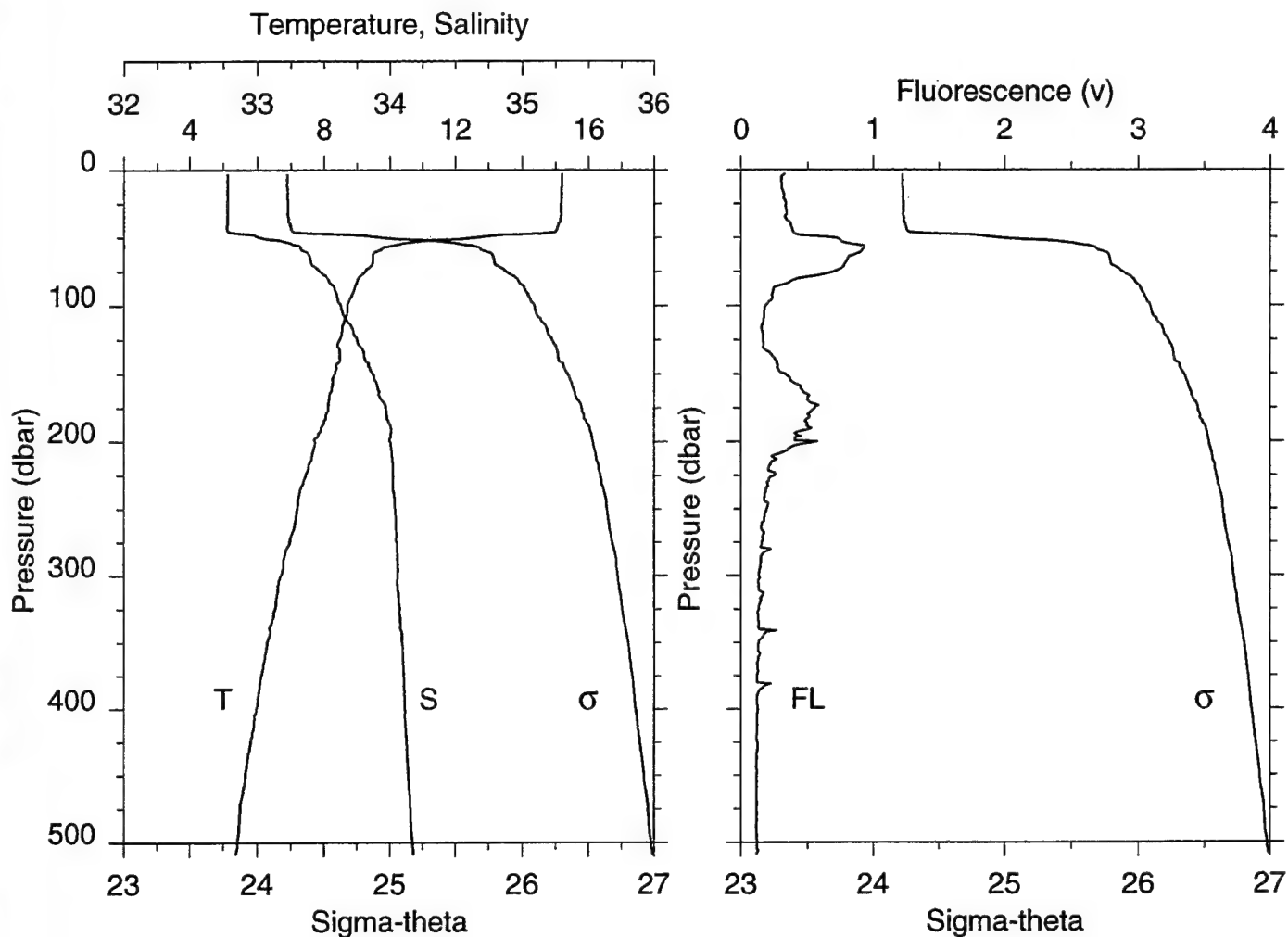
STANO 31 LAT: 37 55.5 N LONG: 126 9.9 W
09 JUL 1993 1941 GMT DEPTH 4700

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.467	32.835	15.466	24.202	370.9	0.111	0.28
10	15.472	32.835	15.471	24.201	371.1	0.371	0.31
20	15.468	32.835	15.465	24.202	371.4	0.742	0.41
30	15.449	32.835	15.445	24.207	371.2	1.114	0.48
40	15.403	32.835	15.397	24.218	370.5	1.485	0.51
50	10.626	33.224	10.621	25.460	252.1	1.799	0.67
60	9.685	33.391	9.678	25.750	224.7	2.034	0.60
70	9.306	33.482	9.298	25.883	212.2	2.251	0.44
80	9.092	33.527	9.084	25.952	205.8	2.461	0.23
90	8.893	33.563	8.883	26.012	200.3	2.663	0.18
100	8.683	33.640	8.673	26.105	191.7	2.860	0.17
110	8.516	33.696	8.504	26.175	185.1	3.047	0.14
120	8.410	33.777	8.398	26.254	177.8	3.228	0.16
130	8.317	33.810	8.303	26.294	174.1	3.404	0.17
140	8.184	33.850	8.170	26.346	169.4	3.575	0.20
150	8.069	33.875	8.054	26.382	166.1	3.743	0.18
175	7.862	33.939	7.845	26.463	158.8	4.148	0.31
200	7.559	33.986	7.540	26.545	151.4	4.533	0.13
225	7.306	34.001	7.284	26.592	147.2	4.907	0.12
250	7.065	34.010	7.041	26.634	143.5	5.271	0.12
275	6.706	34.001	6.681	26.675	139.8	5.624	0.12
300	6.438	34.009	6.411	26.717	136.0	5.968	0.11
350	6.060	34.036	6.030	26.787	129.8	6.632	0.11
400	5.990	34.131	5.956	26.872	122.5	7.263	0.12
450	5.704	34.148	5.666	26.921	118.2	7.863	0.12
500	5.278	34.149	5.237	26.973	113.5	8.444	0.12
507	5.244	34.151	5.203	26.979	113.0	8.523	0.11



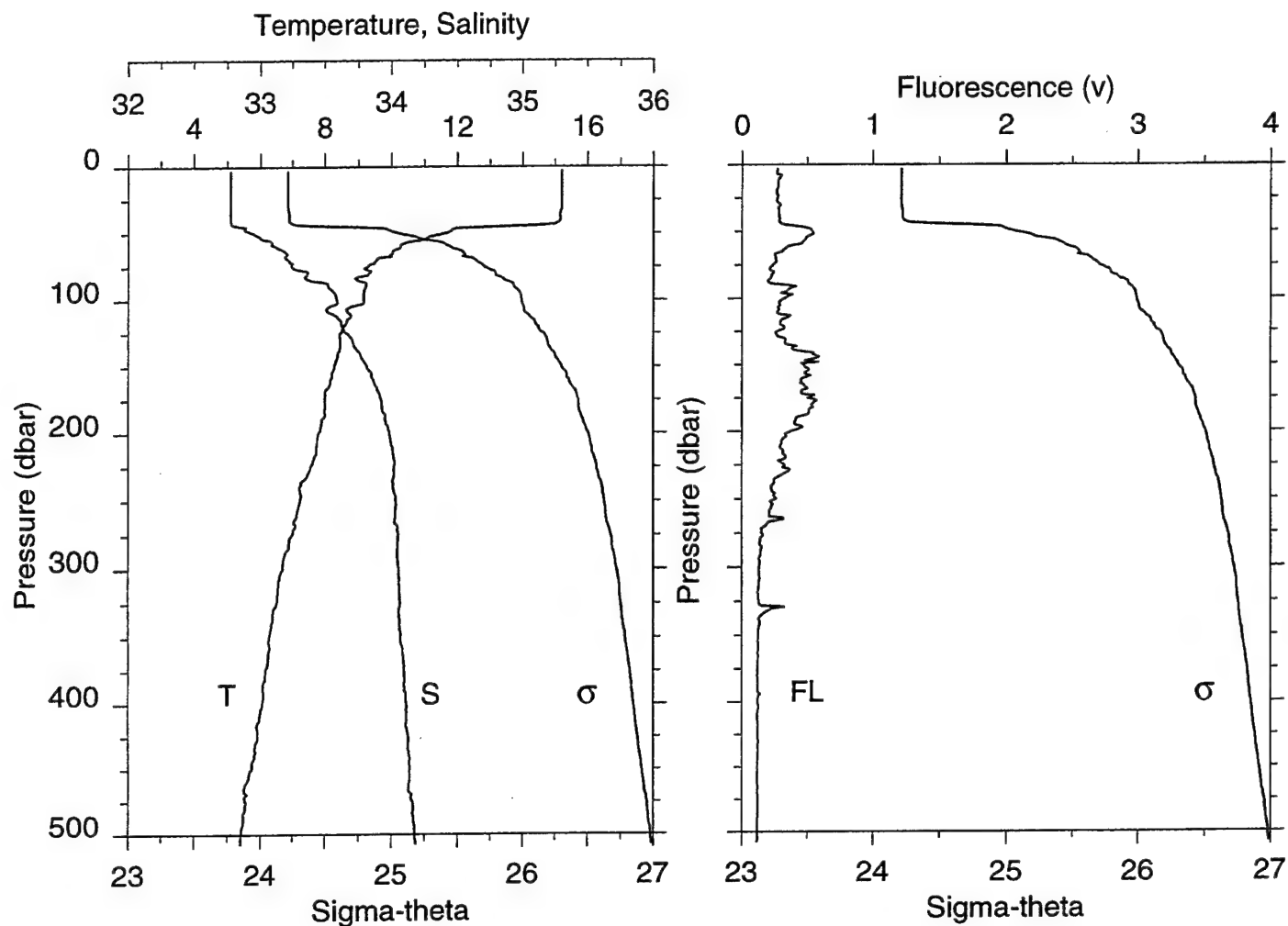
STANO 32 LAT: 37 59.2 N LONG: 126 5.1 W
09 JUL 1993 2111 GMT DEPTH 4700

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	15.400	32.823	15.400	24.208	370.3	0.111	0.28
10	15.399	32.823	15.398	24.208	370.5	0.370	0.31
20	15.396	32.823	15.393	24.209	370.7	0.741	0.36
30	15.387	32.823	15.382	24.212	370.7	1.112	0.43
40	15.387	32.824	15.381	24.212	371.0	1.483	0.43
50	10.056	33.300	10.051	25.617	237.2	1.789	0.64
60	9.689	33.503	9.682	25.836	216.5	2.015	0.64
70	9.238	33.556	9.231	25.951	205.8	2.226	0.58
80	8.795	33.608	8.787	26.062	195.4	2.427	0.35
90	8.626	33.659	8.617	26.128	189.2	2.619	0.20
100	8.552	33.694	8.542	26.167	185.7	2.807	0.16
110	8.476	33.762	8.465	26.232	179.7	2.990	0.15
120	8.381	33.802	8.369	26.278	175.5	3.167	0.19
130	8.293	33.829	8.280	26.313	172.4	3.342	0.19
140	8.156	33.868	8.142	26.364	167.7	3.512	0.17
150	8.047	33.888	8.032	26.396	164.8	3.677	0.19
175	7.694	33.950	7.677	26.497	155.5	4.077	0.16
200	7.425	34.002	7.406	26.576	148.3	4.456	0.14
225	7.250	34.036	7.229	26.628	143.8	4.821	0.14
250	7.021	34.051	6.998	26.672	139.9	5.175	0.13
275	6.876	34.064	6.850	26.702	137.4	5.522	0.12
300	6.725	34.073	6.698	26.730	135.0	5.863	0.12
350	6.255	34.079	6.225	26.797	129.1	6.524	0.12
400	5.830	34.099	5.796	26.867	122.8	7.153	0.12
450	5.630	34.150	5.592	26.932	117.1	7.752	0.12
500	5.387	34.188	5.346	26.992	111.8	8.325	0.12
506	5.322	34.190	5.281	27.000	111.0	8.392	0.12



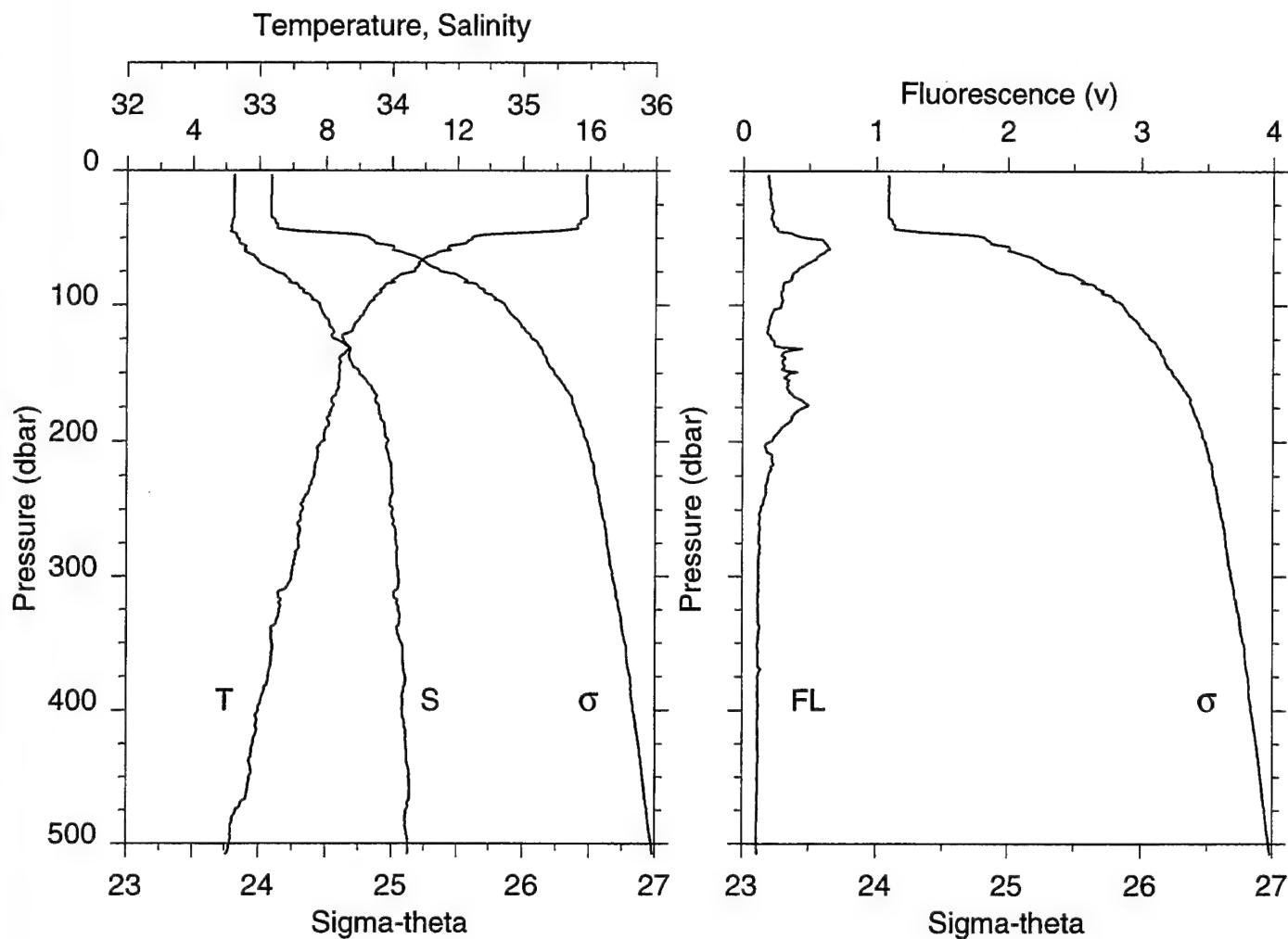
STANO 33 LAT: 38 3.0 N LONG: 126 0.1 W
10 JUL 1993 140 GMT DEPTH 4700

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.185	32.781	15.184	24.223	368.9	0.111	0.33
10	15.192	32.782	15.190	24.222	369.2	0.369	0.30
20	15.173	32.782	15.170	24.226	369.1	0.738	0.32
30	15.159	32.781	15.155	24.229	369.1	1.107	0.34
40	15.082	32.779	15.076	24.245	367.9	1.476	0.37
50	12.600	33.021	12.593	24.940	301.8	1.828	0.69
60	9.616	33.350	9.609	25.729	226.7	2.077	0.91
70	9.452	33.408	9.444	25.801	220.0	2.299	0.77
80	9.027	33.529	9.019	25.964	204.7	2.511	0.42
90	8.886	33.589	8.877	26.033	198.3	2.712	0.24
100	8.708	33.627	8.698	26.090	193.0	2.908	0.18
110	8.614	33.671	8.603	26.139	188.5	3.100	0.17
120	8.534	33.723	8.522	26.193	183.6	3.285	0.16
130	8.414	33.776	8.401	26.253	178.1	3.466	0.17
140	8.477	33.814	8.463	26.273	176.4	3.643	0.26
150	8.327	33.871	8.312	26.341	170.1	3.816	0.33
175	8.127	33.970	8.109	26.449	160.2	4.229	0.55
200	7.731	34.003	7.712	26.534	152.5	4.619	0.57
225	7.449	34.024	7.428	26.590	147.4	4.994	0.25
250	7.191	34.040	7.167	26.640	143.1	5.356	0.19
275	6.973	34.053	6.947	26.681	139.5	5.709	0.15
300	6.707	34.060	6.679	26.722	135.8	6.053	0.13
350	6.304	34.095	6.273	26.803	128.5	6.715	0.13
400	5.978	34.116	5.944	26.862	123.4	7.344	0.12
450	5.656	34.141	5.618	26.922	118.1	7.948	0.12
500	5.419	34.175	5.378	26.977	113.2	8.525	0.12
509	5.360	34.180	5.318	26.988	112.3	8.627	0.12



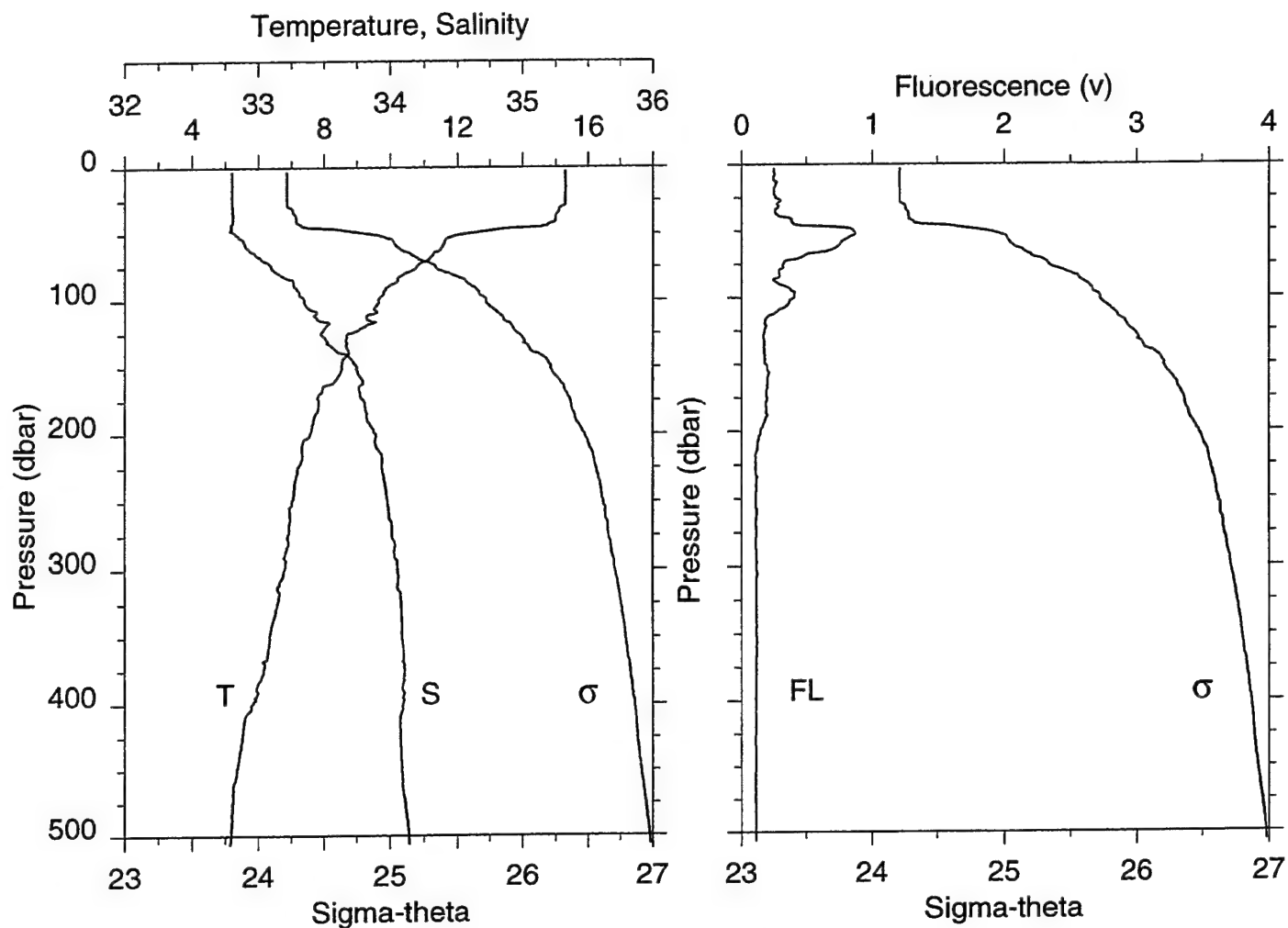
STA NO 34 LAT: 38 6.9 N LONG: 125 55.0 W
10 JUL 1993 306 GMT DEPTH 4200

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	15.205	32.776	15.204	24.214	369.7	0.111	0.27
10	15.211	32.776	15.210	24.213	370.0	0.370	0.29
20	15.212	32.776	15.209	24.214	370.3	0.740	0.27
30	15.208	32.776	15.203	24.214	370.5	1.110	0.29
40	15.163	32.775	15.157	24.224	369.9	1.480	0.29
50	11.614	32.951	11.607	25.071	289.2	1.810	0.54
60	10.268	33.130	10.261	25.448	253.4	2.078	0.40
70	9.546	33.224	9.539	25.642	235.1	2.322	0.26
80	9.290	33.363	9.281	25.792	221.0	2.550	0.24
90	9.214	33.529	9.205	25.934	207.7	2.763	0.35
100	9.160	33.591	9.149	25.992	202.4	2.967	0.33
110	8.744	33.560	8.732	26.033	198.7	3.168	0.27
120	8.531	33.634	8.518	26.123	190.2	3.363	0.30
130	8.459	33.704	8.446	26.190	184.1	3.550	0.32
140	8.387	33.762	8.372	26.246	178.9	3.732	0.47
150	8.292	33.813	8.277	26.301	173.9	3.909	0.47
175	8.005	33.924	7.987	26.431	161.9	4.327	0.50
200	7.812	33.985	7.792	26.507	155.0	4.726	0.38
225	7.569	34.019	7.548	26.570	149.4	5.106	0.32
250	7.243	34.032	7.219	26.626	144.4	5.473	0.26
275	6.979	34.050	6.953	26.677	139.8	5.829	0.15
300	6.699	34.057	6.672	26.721	135.9	6.174	0.13
350	6.276	34.070	6.246	26.786	130.1	6.839	0.13
400	6.063	34.116	6.029	26.851	124.5	7.475	0.12
450	5.732	34.142	5.694	26.912	119.0	8.084	0.12
500	5.428	34.178	5.386	26.979	113.1	8.663	0.12
508	5.406	34.186	5.365	26.988	112.3	8.754	0.12



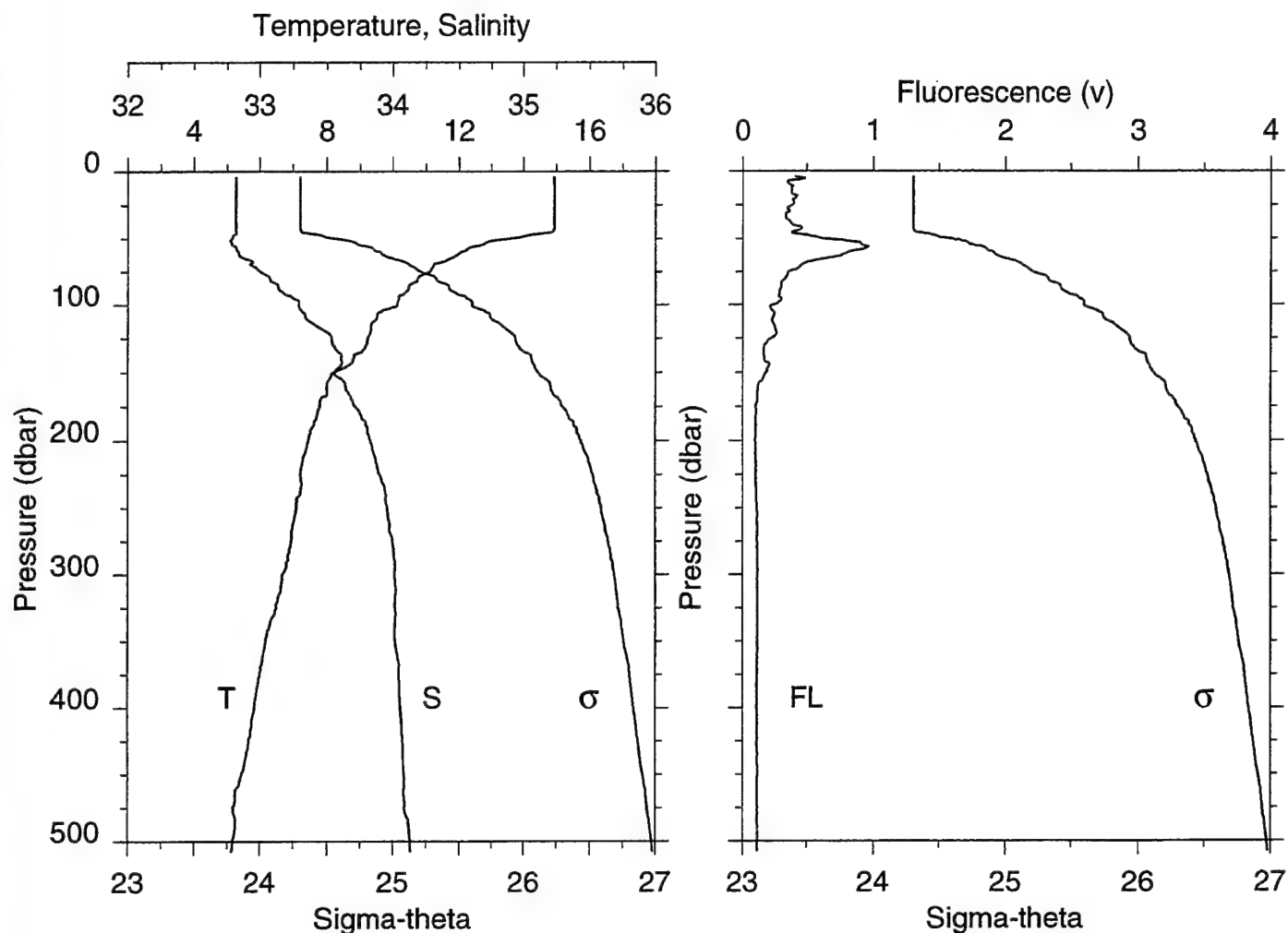
STA NO 35 LAT: 38 10.8 N LONG: 125 50.1 W
 10 JUL 1993 512 GMT DEPTH 4100

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.898	32.813	15.898	24.090	381.6	0.114	0.19
10	15.895	32.813	15.894	24.091	381.7	0.382	0.20
20	15.911	32.814	15.908	24.088	382.3	0.763	0.21
30	15.910	32.813	15.906	24.088	382.6	1.146	0.23
40	15.632	32.796	15.626	24.137	378.2	1.527	0.23
50	12.440	32.837	12.433	24.828	312.4	1.879	0.49
60	11.479	32.894	11.471	25.052	291.3	2.181	0.62
70	10.813	33.028	10.805	25.275	270.2	2.460	0.46
80	10.105	33.212	10.096	25.541	245.0	2.718	0.37
90	9.663	33.325	9.653	25.702	229.8	2.954	0.29
100	9.278	33.452	9.267	25.864	214.6	3.175	0.29
110	9.022	33.507	9.010	25.948	206.8	3.387	0.21
120	8.747	33.558	8.735	26.031	199.0	3.589	0.19
130	8.669	33.657	8.656	26.120	190.7	3.784	0.25
140	8.408	33.678	8.393	26.177	185.5	3.972	0.31
150	8.405	33.753	8.389	26.237	180.0	4.155	0.35
175	8.192	33.905	8.174	26.388	166.0	4.585	0.47
200	7.903	33.972	7.884	26.484	157.3	4.989	0.22
225	7.653	33.997	7.631	26.540	152.3	5.375	0.20
250	7.310	34.007	7.286	26.597	147.1	5.749	0.14
275	7.184	34.035	7.158	26.637	143.7	6.112	0.12
300	6.979	34.054	6.952	26.680	139.9	6.467	0.13
350	6.400	34.077	6.369	26.776	131.2	7.144	0.12
400	6.001	34.085	5.966	26.834	126.0	7.787	0.12
450	5.732	34.133	5.694	26.906	119.7	8.399	0.12
500	5.155	34.129	5.115	26.972	113.4	8.982	0.11
508	5.046	34.125	5.006	26.981	112.5	9.072	0.12



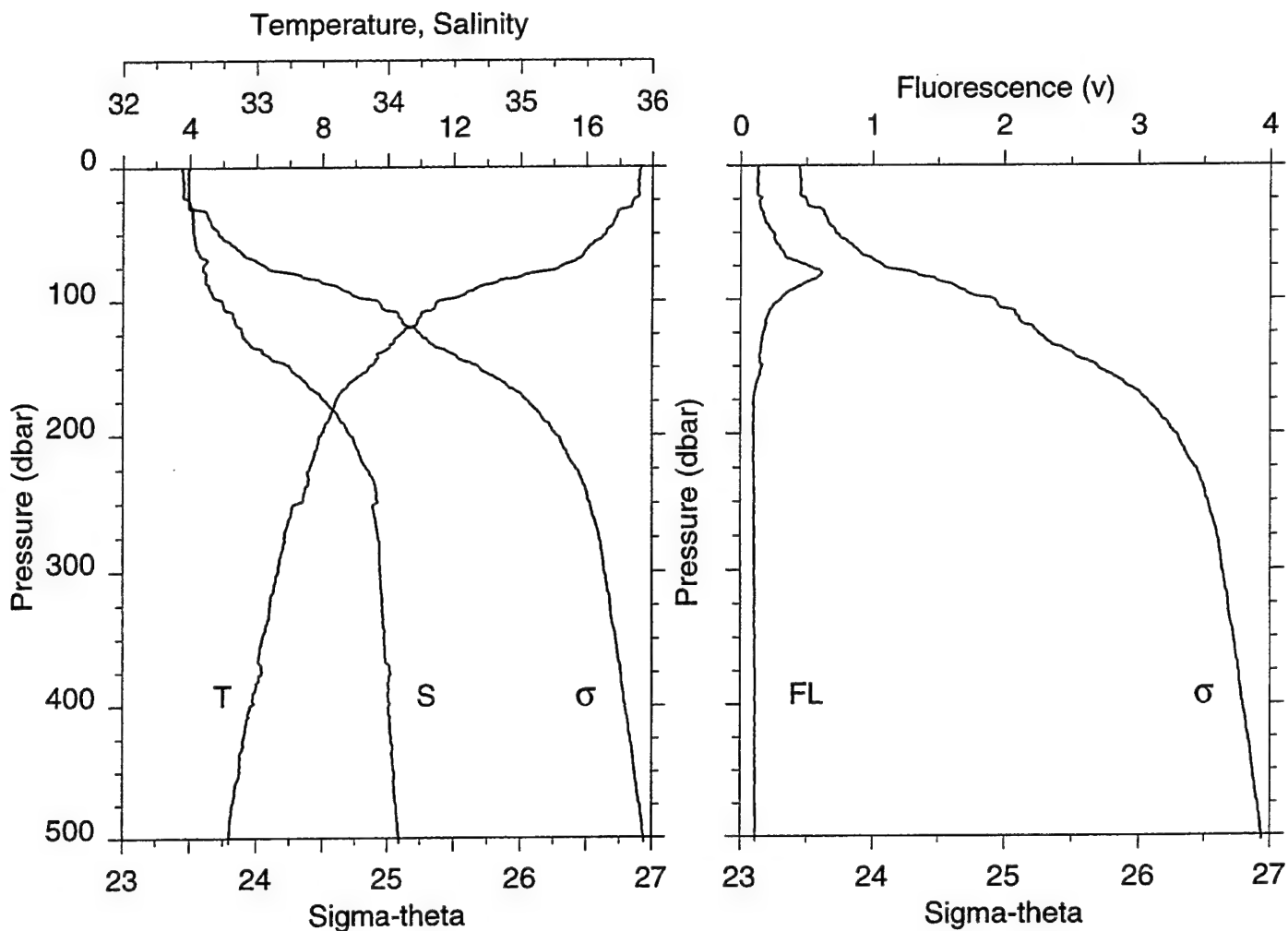
STA NO 36 LAT: 38 14.2 N LONG: 125 45.0 W
 10 JUL 1993 641 GMT DEPTH 4100

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.286	32.800	15.285	24.215	369.6	0.111	0.25
10	15.294	32.801	15.292	24.214	369.9	0.370	0.25
20	15.293	32.801	15.290	24.215	370.1	0.740	0.25
30	15.165	32.804	15.160	24.245	367.5	1.110	0.28
40	14.990	32.806	14.984	24.286	364.0	1.475	0.37
50	12.235	32.829	12.229	24.861	309.2	1.819	0.86
60	11.536	32.912	11.528	25.056	290.9	2.116	0.75
70	11.092	33.041	11.083	25.236	273.9	2.398	0.46
80	10.408	33.160	10.399	25.449	253.8	2.662	0.29
90	9.894	33.284	9.884	25.632	236.6	2.906	0.29
100	9.648	33.349	9.637	25.723	228.0	3.138	0.41
110	9.441	33.436	9.428	25.825	218.5	3.363	0.28
120	9.191	33.508	9.178	25.922	209.4	3.577	0.18
130	8.667	33.520	8.654	26.013	200.9	3.782	0.17
140	8.750	33.673	8.735	26.121	190.9	3.980	0.18
150	8.532	33.750	8.517	26.215	182.1	4.165	0.19
175	7.834	33.804	7.817	26.361	168.4	4.603	0.20
200	7.560	33.893	7.541	26.472	158.3	5.014	0.15
225	7.190	33.940	7.169	26.560	150.1	5.399	0.11
250	7.017	33.980	6.994	26.616	145.2	5.767	0.11
275	6.887	34.012	6.862	26.660	141.3	6.125	0.12
300	6.782	34.054	6.754	26.707	137.2	6.473	0.12
350	6.347	34.089	6.316	26.793	129.6	7.137	0.12
400	5.804	34.096	5.770	26.867	122.7	7.768	0.11
450	5.351	34.088	5.315	26.916	118.3	8.371	0.11
500	5.182	34.139	5.142	26.976	113.0	8.948	0.11
507	5.145	34.142	5.104	26.983	112.4	9.027	0.12



STA NO 37 LAT: 38 17.9 N LONG: 125 40.0 W
10 JUL 1993 814 GMT DEPTH 4000

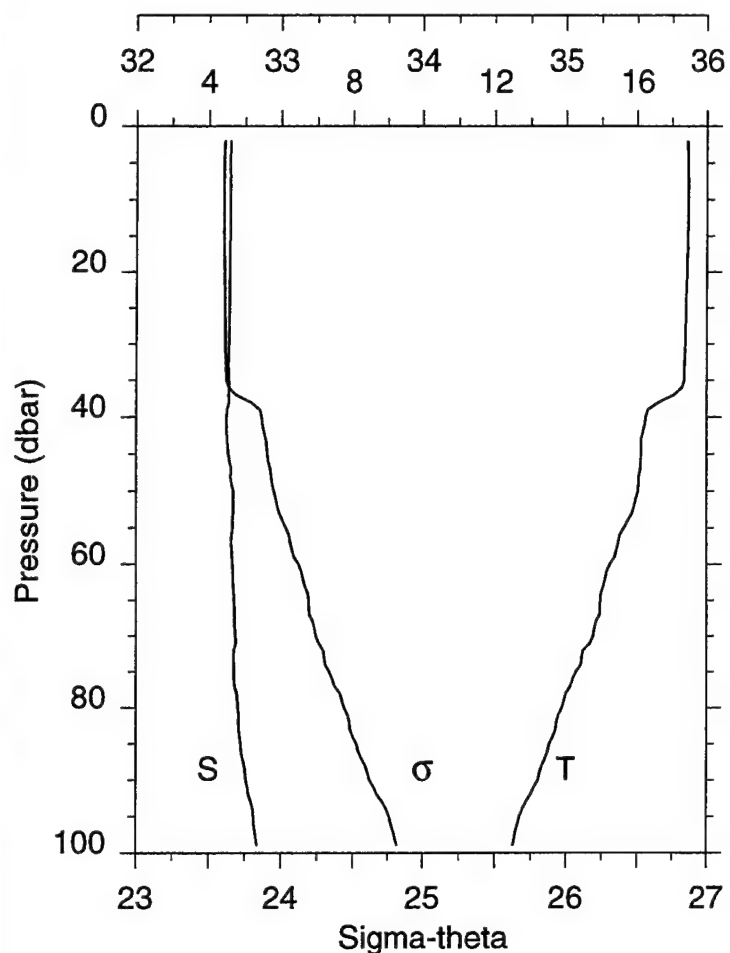
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
4	14.940	32.817	14.939	24.304	361.2	0.144	0.41
10	14.940	32.817	14.938	24.304	361.4	0.361	0.37
20	14.944	32.817	14.941	24.303	361.8	0.723	0.41
30	14.946	32.817	14.941	24.303	362.1	1.085	0.36
40	14.944	32.817	14.938	24.304	362.3	1.447	0.39
50	13.501	32.787	13.494	24.581	336.0	1.802	0.62
60	12.048	32.840	12.040	24.905	305.3	2.120	0.82
70	11.233	32.939	11.224	25.132	283.9	2.416	0.46
80	10.752	33.080	10.742	25.327	265.5	2.690	0.33
90	10.405	33.171	10.394	25.457	253.2	2.949	0.29
100	10.140	33.290	10.129	25.595	240.3	3.194	0.23
110	9.502	33.347	9.490	25.746	226.0	3.425	0.23
120	9.306	33.497	9.293	25.895	212.1	3.644	0.26
130	9.176	33.546	9.162	25.954	206.6	3.853	0.17
140	8.779	33.607	8.764	26.064	196.2	4.054	0.17
150	8.180	33.556	8.165	26.115	191.4	4.248	0.18
175	7.787	33.714	7.770	26.298	174.4	4.702	0.10
200	7.447	33.831	7.428	26.439	161.4	5.120	0.10
225	7.218	33.900	7.197	26.525	153.5	5.514	0.10
250	7.096	33.957	7.073	26.588	147.9	5.891	0.11
275	6.944	33.997	6.919	26.640	143.2	6.255	0.11
300	6.695	34.014	6.668	26.687	139.0	6.608	0.12
350	6.189	34.019	6.159	26.757	132.8	7.288	0.12
400	5.835	34.061	5.801	26.835	125.7	7.931	0.11
450	5.438	34.085	5.401	26.903	119.6	8.546	0.11
500	5.166	34.131	5.126	26.972	113.4	9.128	0.12
508	5.134	34.135	5.093	26.979	112.8	9.218	0.11



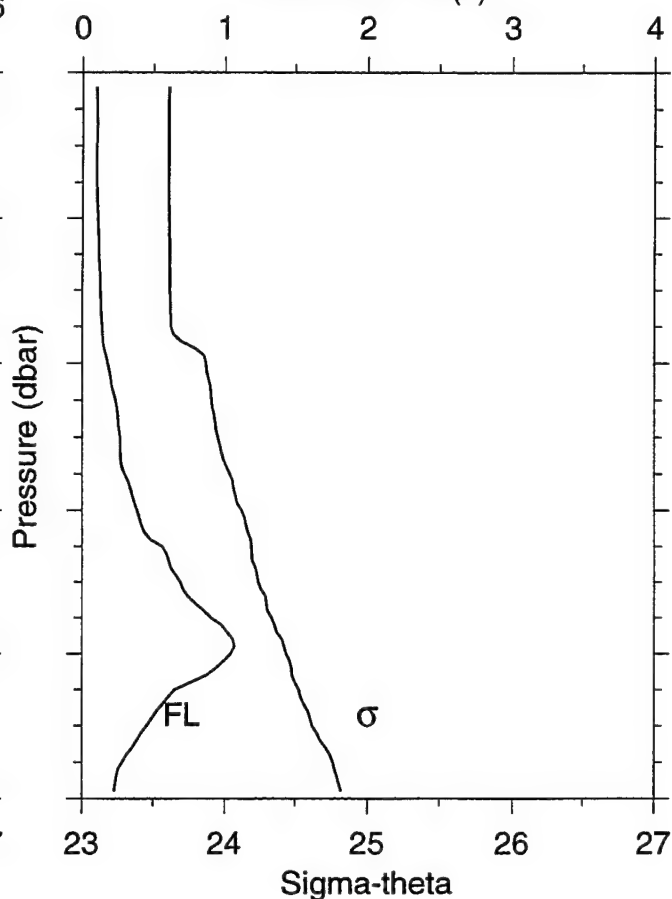
STANO 1 LAT: 39 0.9 N LONG: 128 1.0 W
 16 AUG 1993 155 GMT DEPTH 4350

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
1	17.639	32.496	17.639	23.443	443.2	0.044	0.13
10	17.588	32.488	17.586	23.450	442.9	0.443	0.13
20	17.589	32.488	17.586	23.450	443.2	0.886	0.13
30	17.357	32.494	17.352	23.510	437.8	1.326	0.15
40	16.842	32.525	16.836	23.654	424.3	1.754	0.18
50	16.591	32.528	16.583	23.715	418.8	2.176	0.25
60	16.061	32.544	16.052	23.849	406.3	2.588	0.30
70	15.681	32.627	15.670	23.998	392.4	2.989	0.38
80	14.190	32.619	14.178	24.311	362.6	3.371	0.61
90	12.701	32.645	12.689	24.630	332.3	3.718	0.44
100	11.540	32.742	11.528	24.923	304.4	4.040	0.30
110	11.015	32.824	11.002	25.082	289.5	4.339	0.22
120	10.585	32.888	10.571	25.207	277.7	4.625	0.19
130	10.199	32.933	10.184	25.307	268.3	4.898	0.17
140	9.669	33.073	9.653	25.505	249.5	5.158	0.15
150	9.403	33.257	9.387	25.692	231.9	5.400	0.16
175	8.397	33.528	8.379	26.062	197.0	5.934	0.10
200	7.953	33.711	7.933	26.272	177.4	6.401	0.10
225	7.609	33.840	7.588	26.423	163.3	6.827	0.10
250	7.240	33.909	7.217	26.529	153.5	7.221	0.11
275	6.849	33.925	6.824	26.596	147.3	7.597	0.11
300	6.661	33.941	6.634	26.634	144.0	7.961	0.11
350	6.183	33.975	6.153	26.723	135.9	8.660	0.11
400	5.825	34.009	5.791	26.796	129.5	9.324	0.12
450	5.519	34.053	5.482	26.868	123.0	9.954	0.11
500	5.195	34.091	5.155	26.937	116.7	10.552	0.12
504	5.182	34.092	5.142	26.939	116.6	10.599	0.12

Temperature, Salinity



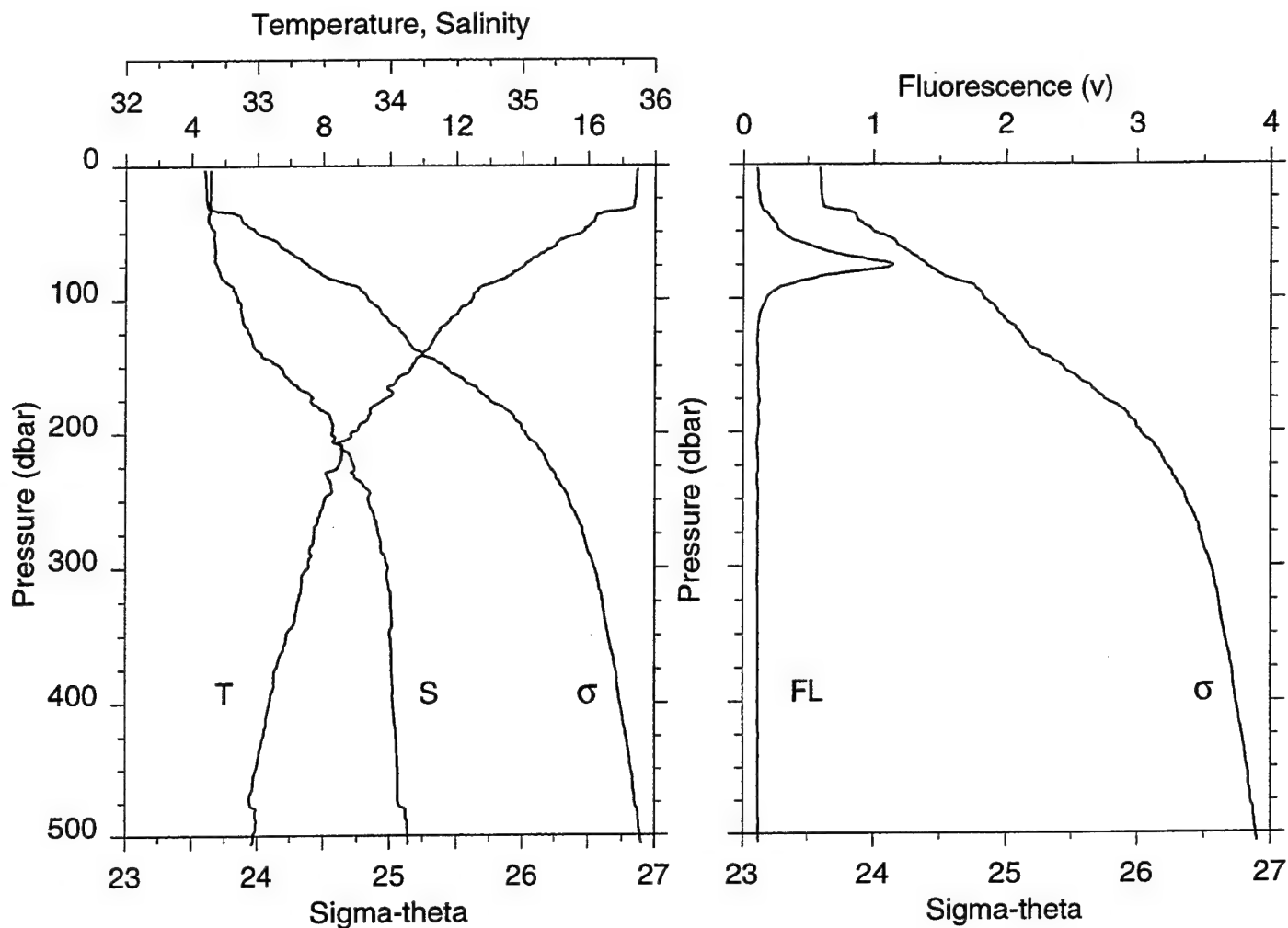
Fluorescence (v)



STA NO 2 LAT: 38 40.0 N LONG: 126 34.6 W
17 AUG 1993 2125 GMT DEPTH 4360

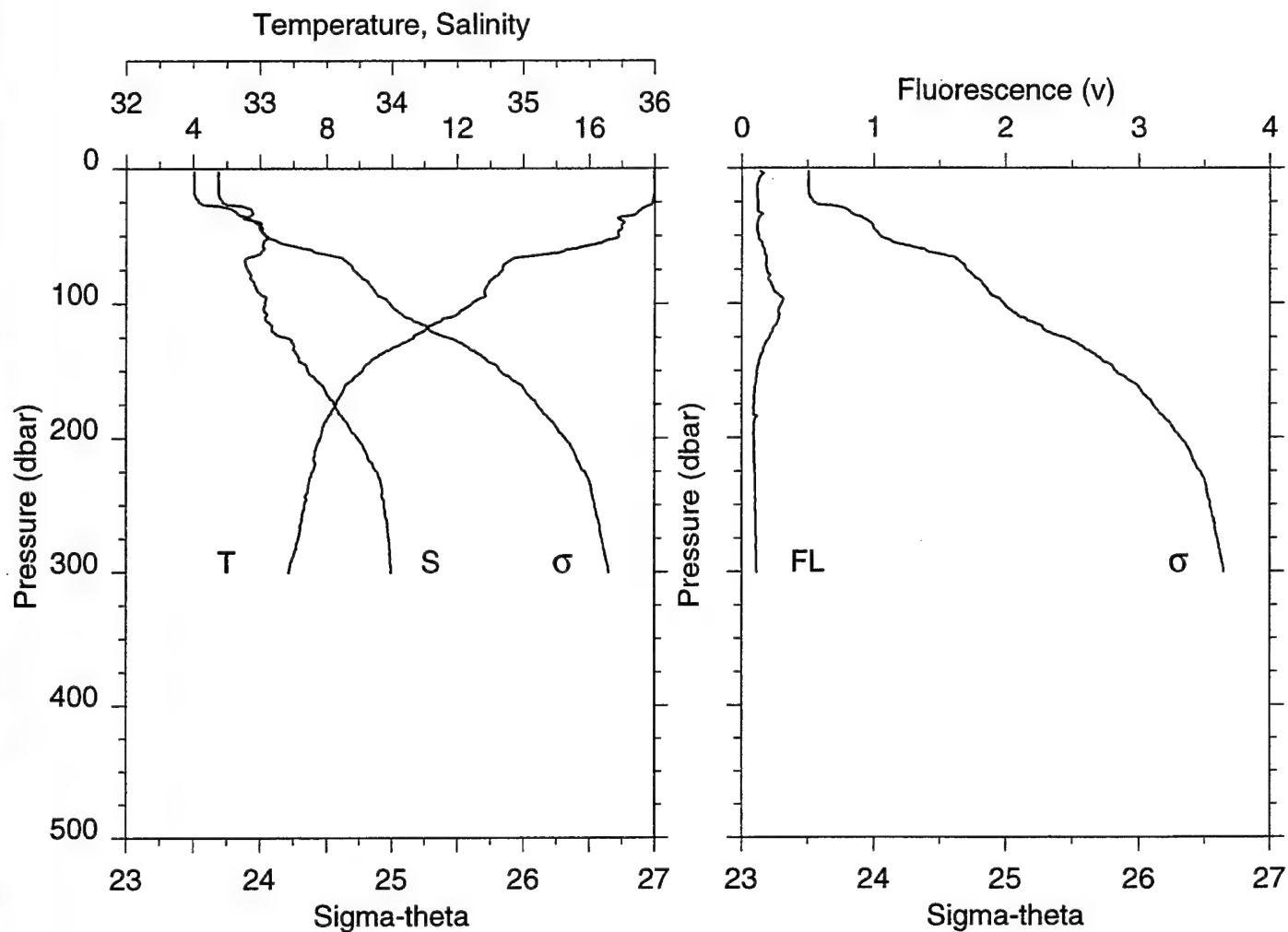
P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
2	17.443	32.648	17.442	23.607	427.6	0.086	0.10
10	17.456	32.645	17.455	23.601	428.4	0.428	0.10
20	17.431	32.643	17.427	23.607	428.2	0.857	0.11
30	17.386	32.638	17.381	23.613	427.9	1.285	0.13
40	16.256	32.623	16.250	23.865	404.2	1.706	0.18
50	16.037	32.670	16.030	23.950	396.3	2.107	0.27
60	15.247	32.665	15.238	24.122	380.2	2.495	0.39
70	14.771	32.686	14.761	24.240	369.2	2.870	0.69
80	13.892	32.703	13.881	24.438	350.5	3.229	1.04
90	13.210	32.758	13.198	24.618	333.5	3.572	0.46
99	12.500	32.836	12.487	24.818	314.6	3.862	0.23

no data at 8 db



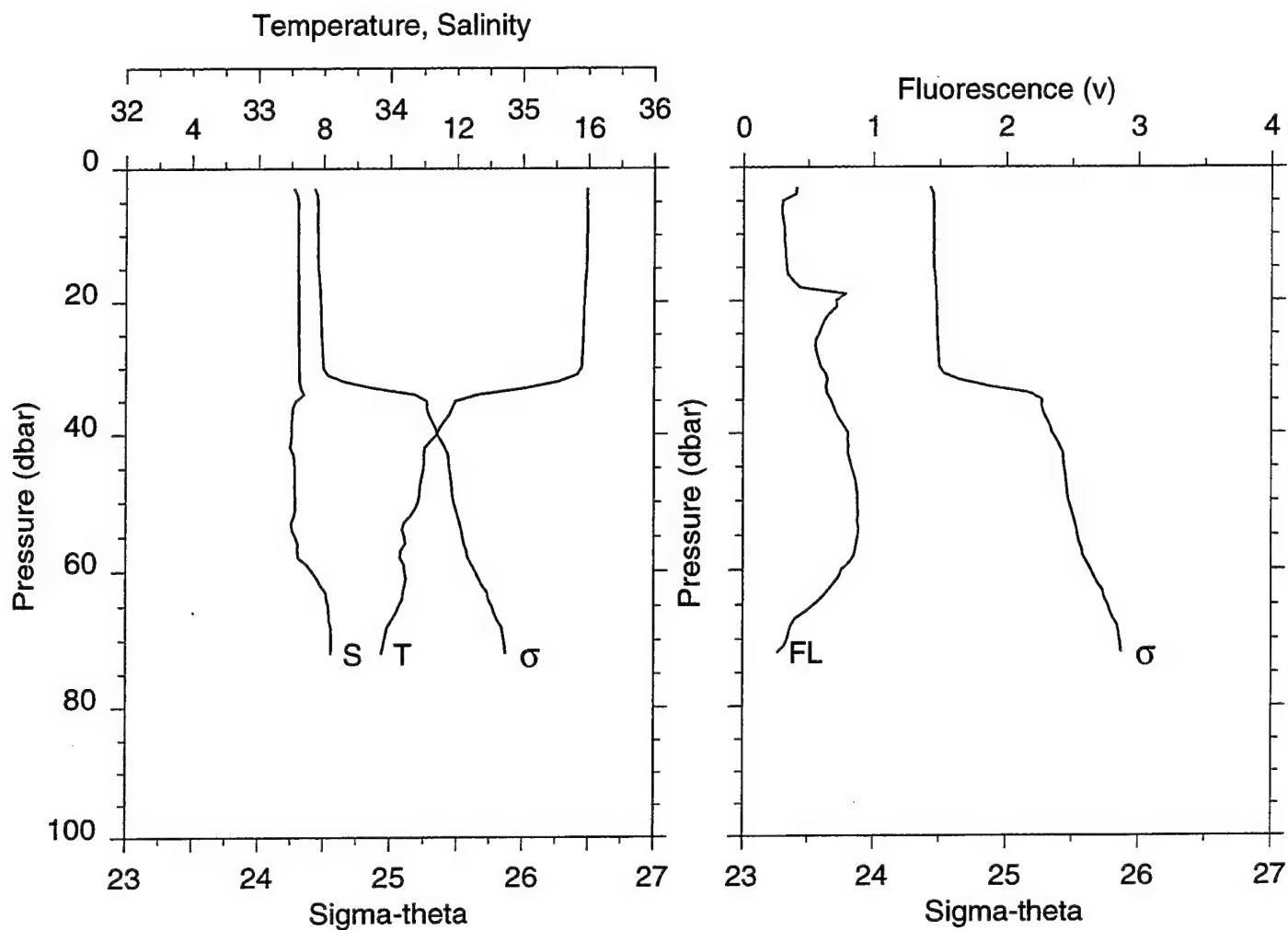
STAN NO 3 LAT: 38 40.0 N LONG: 126 34.6 W
17 AUG 1993 2245 GMT DEPTH 4370

P (DB)	T (C)	S	POTT (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	17.456	32.640	17.456	23.597	428.6	0.129	0.11
10	17.427	32.639	17.425	23.604	428.2	0.428	0.11
20	17.411	32.636	17.408	23.605	428.4	0.857	0.12
30	17.363	32.639	17.358	23.620	427.3	1.285	0.13
40	16.206	32.624	16.200	23.876	403.1	1.699	0.21
50	15.824	32.667	15.816	23.996	391.9	2.097	0.29
60	15.037	32.675	15.028	24.175	375.2	2.478	0.50
70	14.290	32.675	14.280	24.333	360.2	2.846	0.91
80	13.709	32.709	13.698	24.480	346.5	3.200	0.88
90	12.776	32.811	12.764	24.745	321.4	3.536	0.34
100	12.461	32.848	12.448	24.834	313.1	3.853	0.18
110	12.043	32.876	12.029	24.935	303.7	4.160	0.13
120	11.594	32.911	11.579	25.045	293.3	4.459	0.12
130	11.326	32.957	11.310	25.130	285.4	4.748	0.11
140	10.990	33.032	10.973	25.248	274.3	5.029	0.11
150	10.677	33.175	10.659	25.415	258.7	5.295	0.11
175	9.786	33.410	9.766	25.749	227.1	5.901	0.12
200	8.803	33.560	8.782	26.025	201.1	6.430	0.12
225	8.427	33.727	8.404	26.214	183.6	6.908	0.12
250	8.039	33.837	8.014	26.359	170.1	7.348	0.12
275	7.732	33.914	7.705	26.464	160.4	7.760	0.11
300	7.551	33.988	7.522	26.549	152.7	8.152	0.11
350	6.903	34.001	6.870	26.650	143.5	8.889	0.12
400	6.386	34.025	6.350	26.737	135.5	9.584	0.12
450	5.950	34.062	5.912	26.823	127.7	10.241	0.12
500	5.884	34.136	5.841	26.890	122.0	10.866	0.12
507	5.837	34.141	5.794	26.900	121.1	10.951	0.12



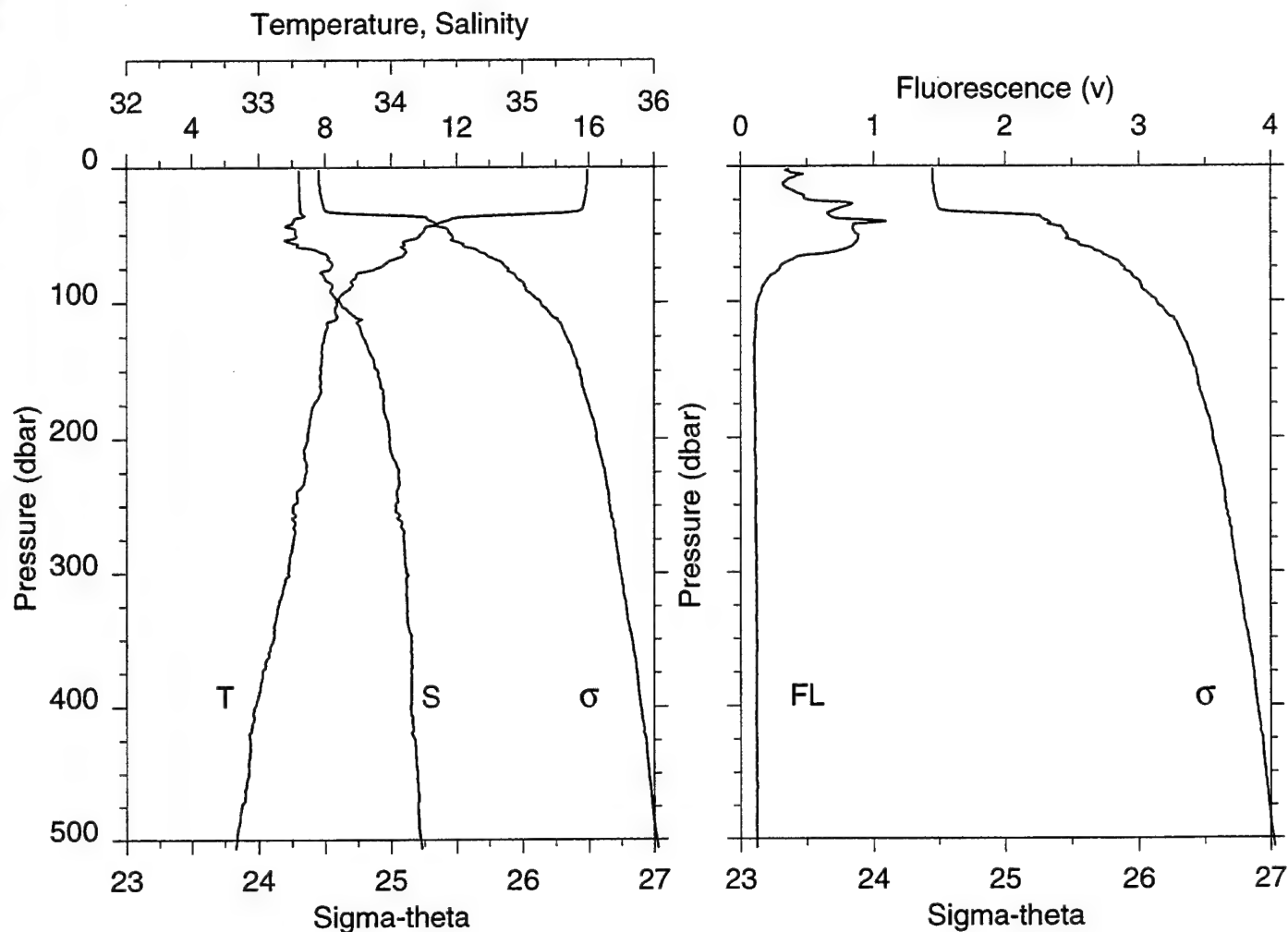
STANO 4 LAT: 37 32.3 N LONG: 128 2.8 W
24 AUG 1993 110 GMT DEPTH 4730

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.983	32.686	17.982	23.506	437.2	0.087	0.14
10	17.990	32.687	17.988	23.505	437.6	0.437	0.12
20	17.970	32.692	17.967	23.514	437.1	0.875	0.12
30	17.609	32.929	17.604	23.783	411.7	1.305	0.12
40	17.079	33.003	17.072	23.966	394.6	1.709	0.12
50	16.903	33.051	16.895	24.044	387.4	2.100	0.13
60	15.311	33.024	15.302	24.384	355.3	2.475	0.17
70	13.470	32.890	13.461	24.667	328.3	2.815	0.19
80	13.134	32.928	13.123	24.764	319.3	3.139	0.20
90	12.827	32.980	12.815	24.865	309.9	3.453	0.24
100	12.438	33.039	12.425	24.986	298.6	3.757	0.30
110	11.795	33.040	11.782	25.108	287.1	4.051	0.28
120	10.982	33.091	10.967	25.296	269.4	4.327	0.23
130	10.265	33.250	10.250	25.544	245.8	4.584	0.18
140	9.481	33.289	9.465	25.705	230.6	4.822	0.14
150	9.085	33.359	9.069	25.823	219.4	5.047	0.12
175	8.281	33.558	8.264	26.103	193.1	5.557	0.09
200	7.793	33.738	7.773	26.316	173.1	6.015	0.09
225	7.567	33.887	7.546	26.466	159.3	6.430	0.10
250	7.330	33.940	7.306	26.542	152.4	6.818	0.10
275	7.145	33.978	7.120	26.598	147.4	7.192	0.11
300	6.872	33.994	6.845	26.648	142.8	7.555	0.11
301	6.869	33.995	6.841	26.649	142.8	7.569	0.11



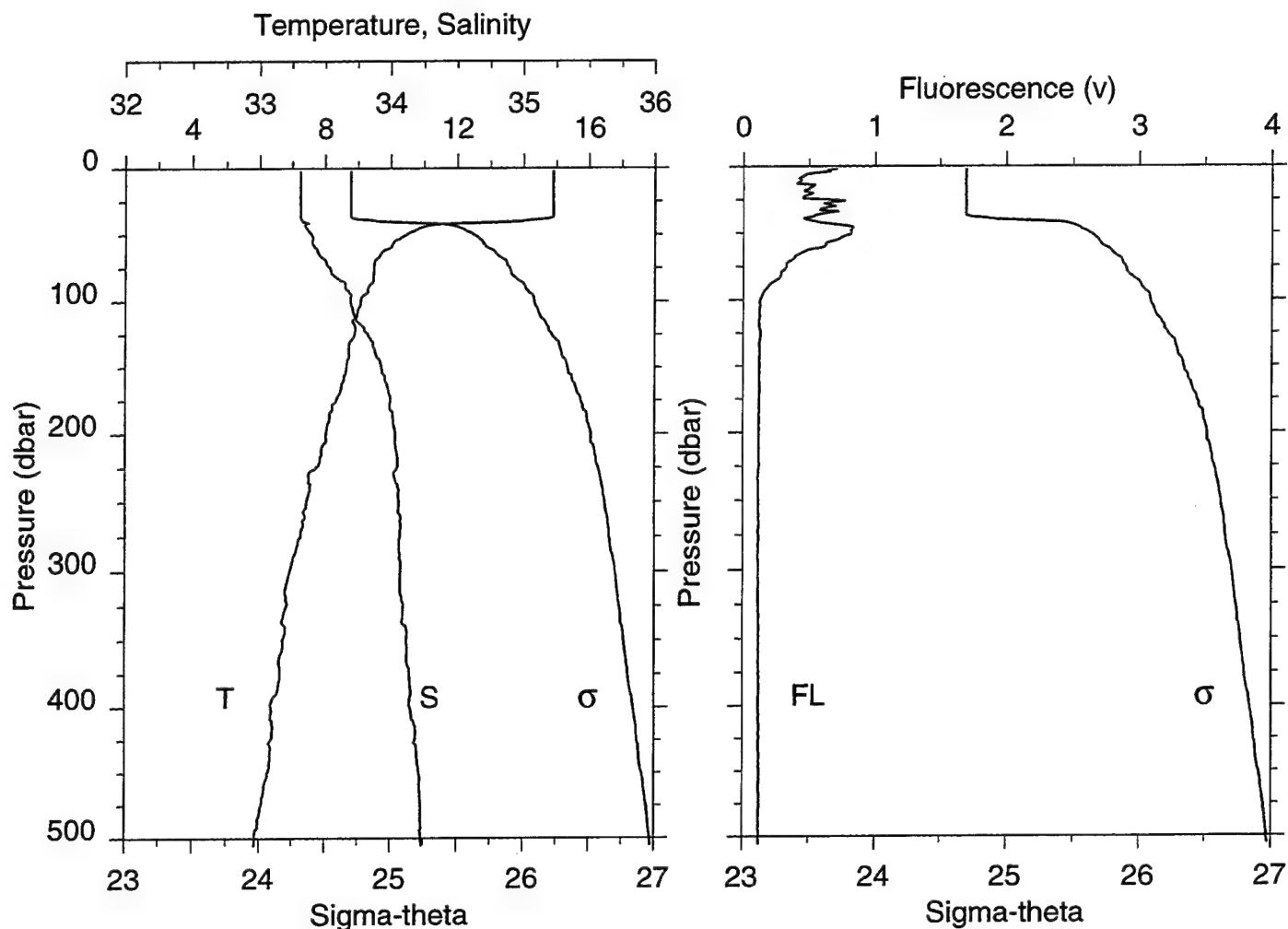
STAN O 5 LAT: 36 17.8 N LONG: 123 45.1 W
26 AUG 1993 2120 GMT DEPTH 3850

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
3	15.958	33.271	15.957	24.428	349.3	0.105	0.41
10	15.956	33.303	15.954	24.454	347.1	0.348	0.32
20	15.878	33.307	15.875	24.475	345.4	0.695	0.71
30	15.792	33.312	15.787	24.498	343.5	1.039	0.60
40	11.389	33.256	11.384	25.349	262.5	1.329	0.81
50	10.822	33.284	10.816	25.473	250.9	1.583	0.88
60	10.429	33.412	10.423	25.641	235.1	1.827	0.76
70	9.826	33.559	9.818	25.858	214.7	2.051	0.34
72	9.736	33.558	9.727	25.872	213.4	2.094	0.27



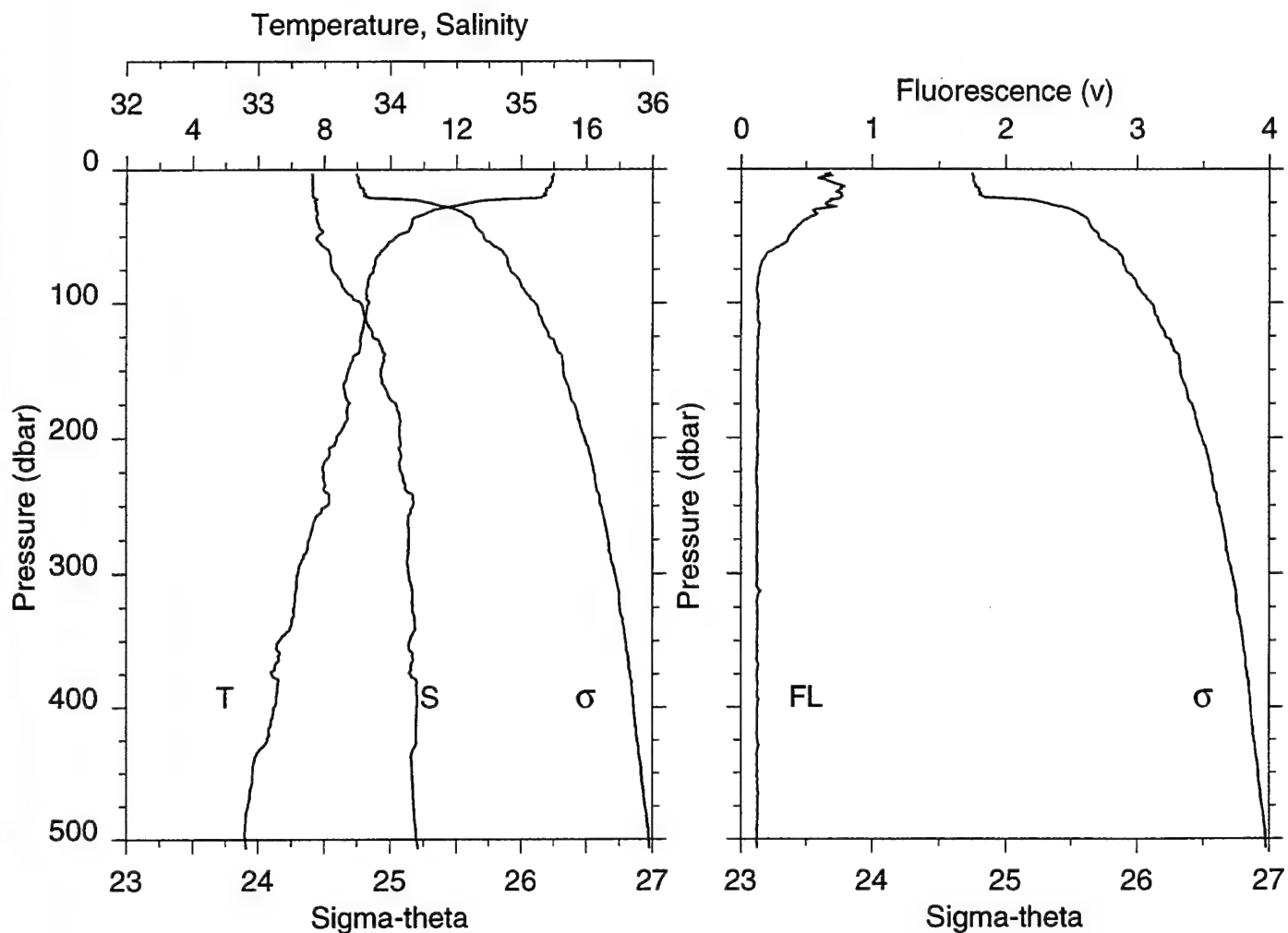
STA NO 6 LAT: 36 17.8 N LONG: 123 45.1 W
26 AUG 1993 2128 GMT DEPTH 3850

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.950	33.299	15.950	24.452	347.0	0.069	0.37
10	15.955	33.301	15.954	24.453	347.2	0.347	0.35
20	15.907	33.304	15.904	24.466	346.2	0.694	0.43
30	15.823	33.311	15.819	24.491	344.2	1.039	0.78
40	11.639	33.260	11.634	25.307	266.6	1.346	0.94
50	10.867	33.275	10.861	25.458	252.4	1.604	0.86
60	10.351	33.369	10.344	25.621	237.1	1.852	0.82
70	9.897	33.547	9.890	25.837	216.7	2.079	0.37
80	8.946	33.488	8.937	25.945	206.5	2.291	0.24
90	8.750	33.546	8.740	26.021	199.4	2.493	0.16
100	8.350	33.615	8.340	26.136	188.6	2.687	0.13
110	8.381	33.729	8.370	26.221	180.7	2.872	0.12
120	8.030	33.771	8.018	26.306	172.8	3.047	0.11
130	7.917	33.816	7.904	26.358	168.0	3.218	0.10
140	7.900	33.862	7.887	26.397	164.5	3.384	0.10
150	7.873	33.902	7.858	26.433	161.2	3.547	0.11
175	7.650	33.942	7.633	26.497	155.5	3.945	0.11
200	7.469	33.987	7.450	26.558	150.1	4.325	0.11
225	7.417	34.057	7.395	26.621	144.5	4.694	0.12
250	7.031	34.036	7.008	26.658	141.2	5.051	0.12
275	7.042	34.094	7.016	26.703	137.4	5.398	0.12
300	6.883	34.116	6.856	26.742	133.9	5.737	0.12
350	6.429	34.150	6.398	26.830	126.1	6.388	0.12
400	5.881	34.146	5.847	26.897	120.0	7.002	0.12
450	5.701	34.198	5.663	26.961	114.5	7.586	0.12
500	5.353	34.220	5.312	27.020	109.1	8.146	0.12
507	5.326	34.228	5.284	27.031	108.2	8.222	0.12



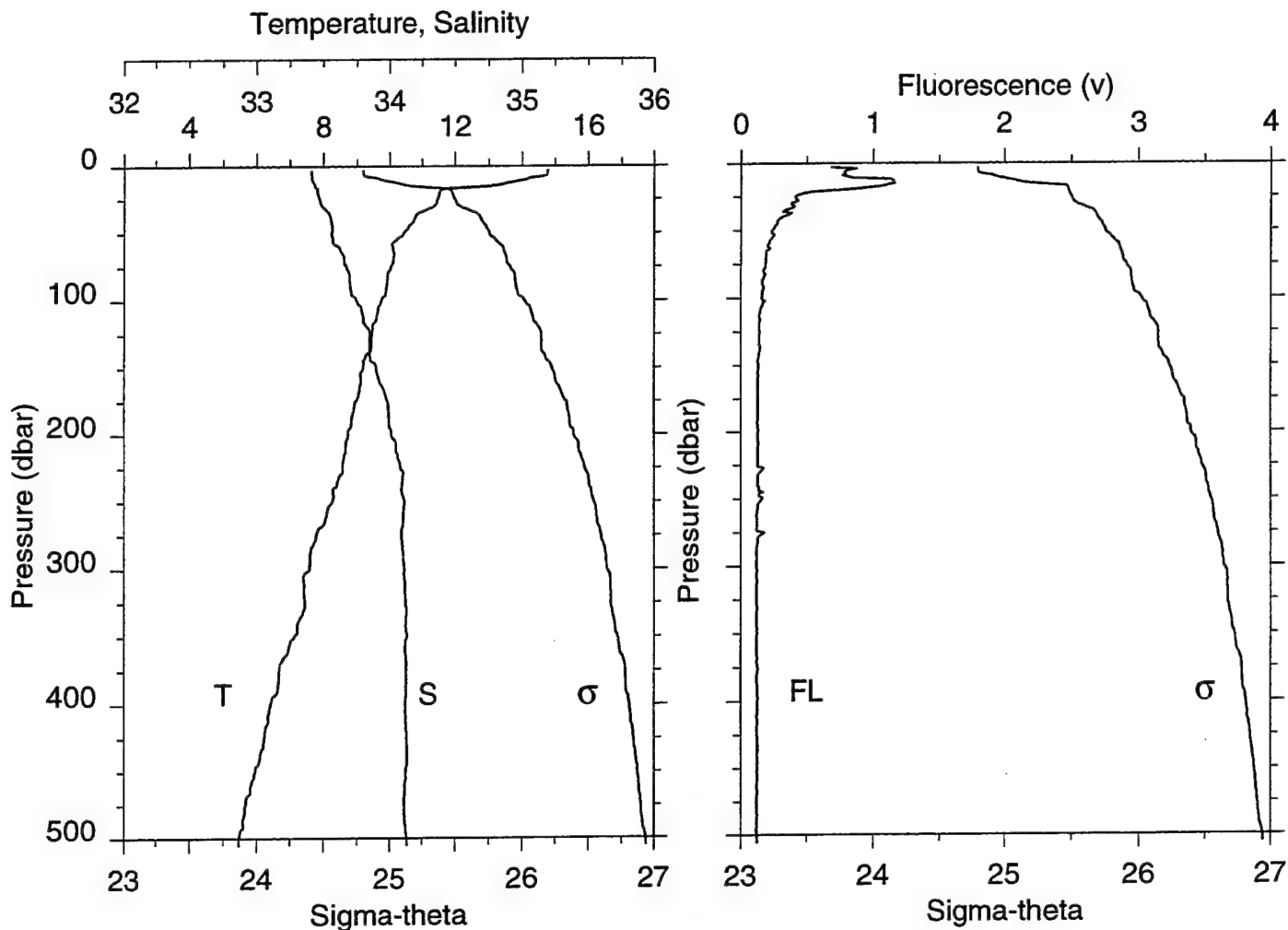
STA NO 7 LAT: 37 0.1 N LONG: 125 0.7 W
27 AUG 1993 553 GMT DEPTH 4377

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.899	33.311	14.899	24.693	324.1	0.065	0.71
10	14.901	33.311	14.900	24.692	324.3	0.324	0.44
20	14.902	33.312	14.899	24.693	324.6	0.649	0.52
30	14.904	33.312	14.899	24.693	324.9	0.973	0.70
40	13.890	33.329	13.884	24.920	303.5	1.295	0.48
50	10.460	33.396	10.454	25.623	236.6	1.547	0.82
60	9.955	33.431	9.948	25.736	226.0	1.778	0.62
70	9.498	33.504	9.491	25.868	213.6	1.997	0.37
80	9.470	33.562	9.461	25.918	209.1	2.209	0.29
90	9.301	33.653	9.291	26.017	199.9	2.412	0.19
100	9.076	33.693	9.066	26.084	193.7	2.608	0.13
110	8.969	33.720	8.958	26.123	190.2	2.800	0.12
120	8.913	33.796	8.900	26.191	183.9	2.987	0.12
130	8.759	33.860	8.745	26.266	176.9	3.168	0.13
140	8.722	33.887	8.707	26.293	174.6	3.344	0.12
150	8.645	33.928	8.629	26.337	170.6	3.516	0.12
175	8.336	33.998	8.318	26.439	161.3	3.931	0.12
200	8.034	34.036	8.014	26.515	154.4	4.324	0.12
225	7.729	34.050	7.707	26.571	149.4	4.705	0.12
250	7.457	34.064	7.433	26.621	145.0	5.073	0.12
275	7.278	34.072	7.252	26.653	142.2	5.431	0.12
300	6.944	34.075	6.916	26.702	137.8	5.781	0.12
350	6.729	34.122	6.697	26.768	132.2	6.456	0.12
400	6.369	34.152	6.334	26.840	125.8	7.103	0.12
450	6.260	34.217	6.220	26.906	120.2	7.719	0.12
500	5.874	34.232	5.831	26.967	114.7	8.305	0.12
506	5.864	34.237	5.820	26.973	114.3	8.374	0.12



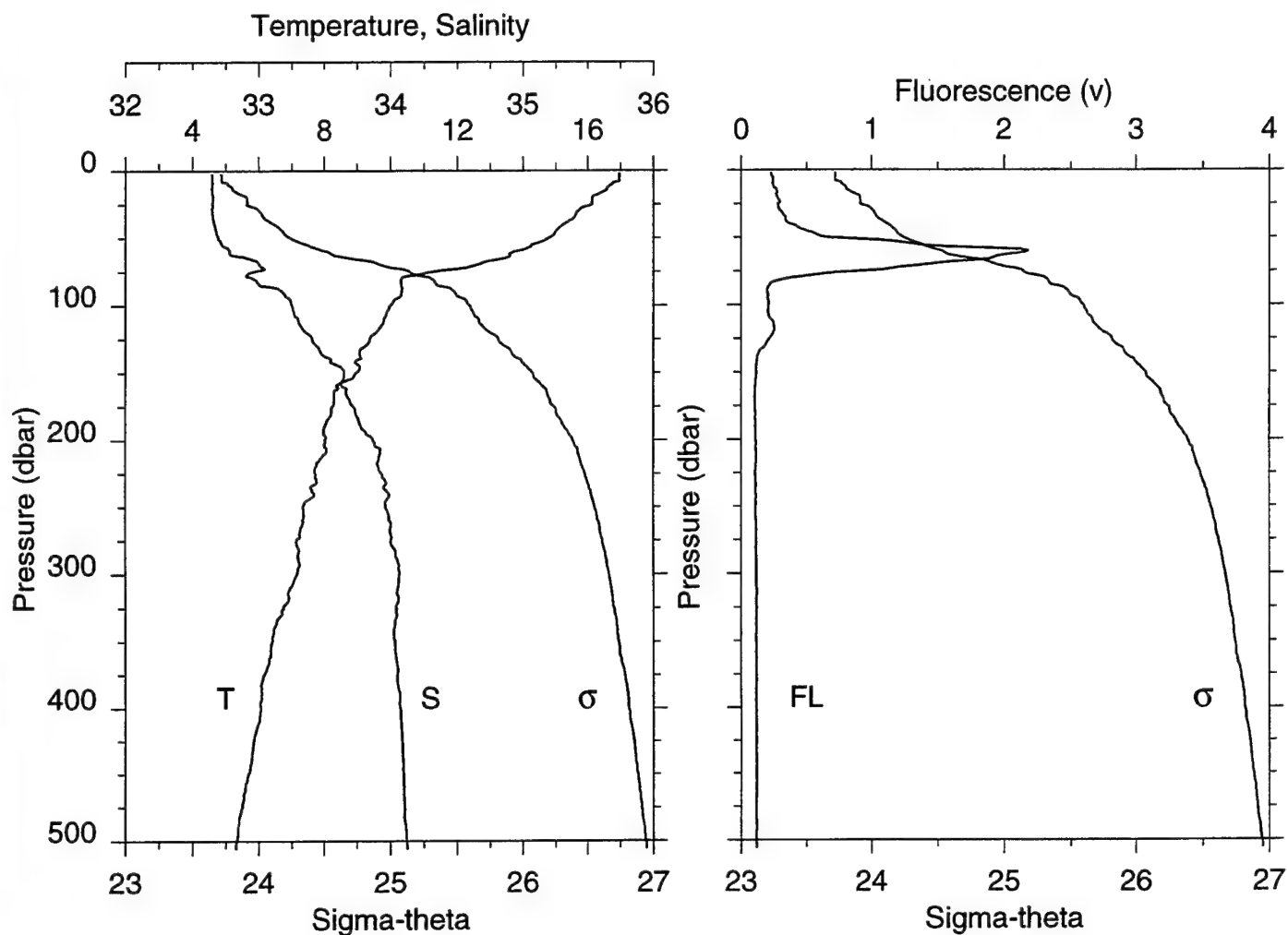
STANO 8 LAT: 37 0.1 N LONG: 123 0.2 W
 27 AUG 1993 1657 GMT DEPTH 1880

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.000	33.407	14.999	24.745	319.1	0.096	0.69
10	14.935	33.410	14.934	24.761	317.8	0.319	0.70
20	14.654	33.411	14.651	24.823	312.2	0.634	0.77
30	11.292	33.435	11.289	25.505	247.4	0.906	0.57
40	10.640	33.451	10.635	25.634	235.4	1.146	0.46
50	10.197	33.446	10.191	25.707	228.7	1.377	0.37
60	9.774	33.530	9.768	25.843	215.9	1.601	0.25
70	9.545	33.549	9.537	25.896	211.0	1.813	0.16
80	9.371	33.603	9.362	25.967	204.5	2.022	0.13
90	9.282	33.657	9.272	26.023	199.3	2.224	0.12
100	9.351	33.778	9.341	26.107	191.5	2.419	0.13
110	9.241	33.810	9.229	26.150	187.7	2.609	0.13
120	9.171	33.859	9.158	26.200	183.1	2.794	0.14
130	9.108	33.921	9.094	26.259	177.7	2.975	0.13
140	8.887	33.951	8.872	26.317	172.4	3.150	0.13
150	8.736	33.934	8.721	26.328	171.5	3.322	0.13
175	8.736	34.044	8.717	26.414	163.8	3.743	0.13
200	8.384	34.073	8.363	26.491	156.8	4.144	0.13
225	7.980	34.083	7.958	26.561	150.5	4.527	0.12
250	8.083	34.170	8.058	26.614	146.0	4.898	0.13
275	7.534	34.138	7.507	26.669	140.9	5.256	0.13
300	7.202	34.139	7.174	26.717	136.6	5.604	0.13
350	6.633	34.146	6.601	26.800	129.1	6.268	0.12
400	6.492	34.199	6.456	26.861	124.0	6.900	0.13
450	5.845	34.164	5.807	26.916	118.8	7.508	0.12
500	5.610	34.197	5.568	26.972	114.0	8.090	0.12
507	5.644	34.209	5.601	26.977	113.6	8.169	0.12



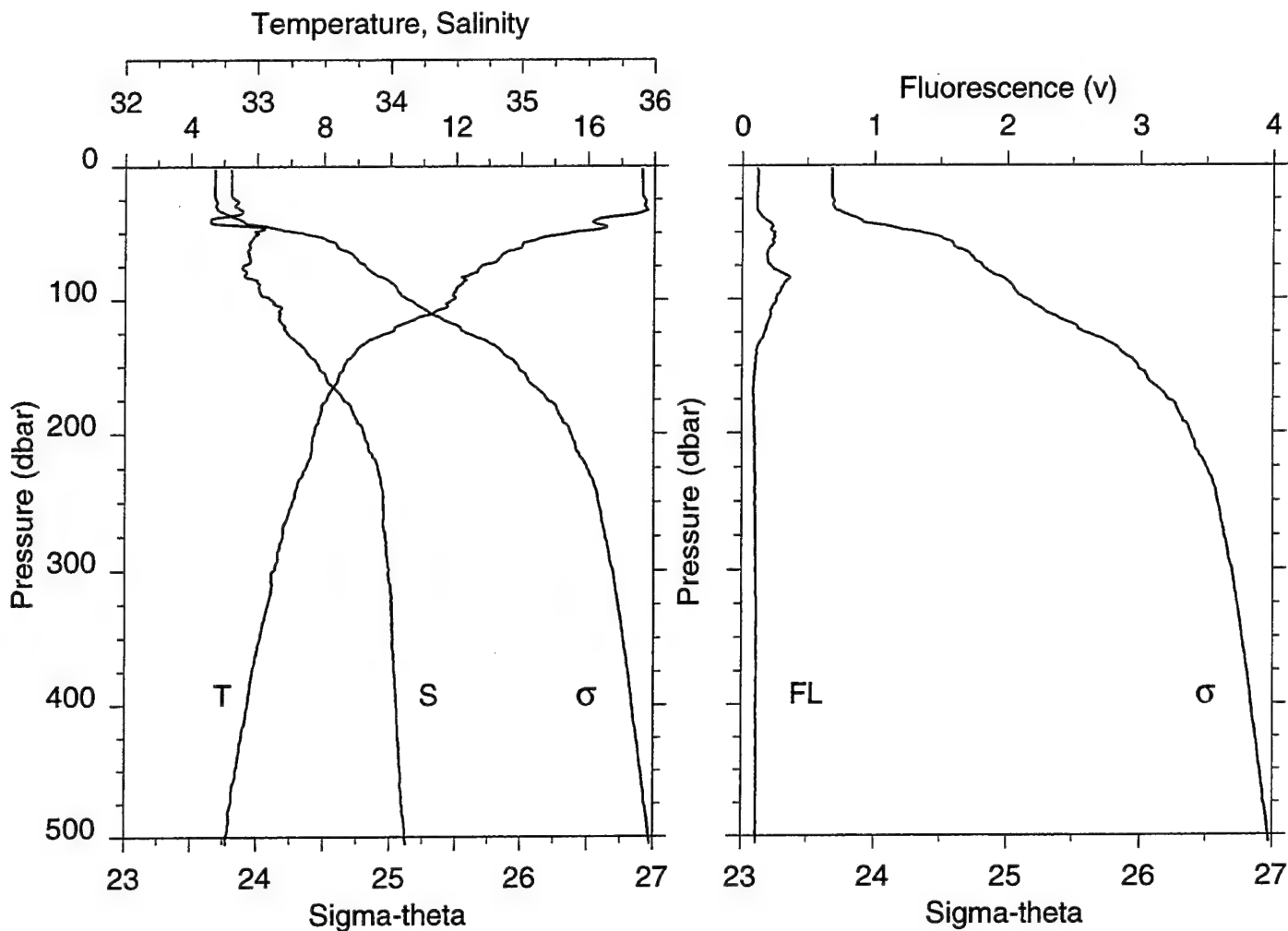
STAN O 9 LAT: 37 30.0 N LONG: 123 15.2 W
 30 AUG 93 510 GMT DEPTH 1600

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	14.785	33.410	14.784	24.794	314.5	0.094	0.68
10	14.164	33.412	14.163	24.927	302.0	0.312	0.81
20	11.529	33.454	11.526	25.477	249.8	0.586	0.75
30	11.367	33.490	11.363	25.535	244.6	0.834	0.38
40	10.753	33.554	10.748	25.695	229.6	1.068	0.31
50	10.426	33.559	10.420	25.755	224.0	1.295	0.23
60	10.095	33.614	10.089	25.855	214.8	1.515	0.21
70	10.108	33.654	10.100	25.885	212.2	1.728	0.19
80	9.940	33.692	9.931	25.943	206.9	1.938	0.17
90	9.901	33.700	9.891	25.955	205.8	2.144	0.16
100	9.737	33.748	9.726	26.021	199.8	2.348	0.16
110	9.610	33.791	9.598	26.076	194.8	2.545	0.14
120	9.477	33.832	9.464	26.129	189.9	2.738	0.14
130	9.439	33.846	9.424	26.147	188.4	2.926	0.14
140	9.280	33.844	9.264	26.171	186.3	3.115	0.14
150	9.180	33.897	9.164	26.229	181.0	3.298	0.13
175	8.945	33.987	8.927	26.337	171.2	3.740	0.13
200	8.729	34.012	8.708	26.390	166.5	4.163	0.13
225	8.562	34.085	8.539	26.474	159.0	4.569	0.13
250	8.258	34.114	8.233	26.544	152.8	4.958	0.16
275	7.787	34.093	7.760	26.597	147.9	5.334	0.18
300	7.583	34.113	7.554	26.643	143.8	5.697	0.12
350	7.133	34.134	7.099	26.723	136.8	6.399	0.12
400	6.415	34.122	6.380	26.811	128.6	7.061	0.13
450	5.955	34.125	5.916	26.872	123.1	7.690	0.12
500	5.471	34.132	5.430	26.937	117.1	8.293	0.12
506	5.458	34.133	5.416	26.939	116.9	8.363	0.12



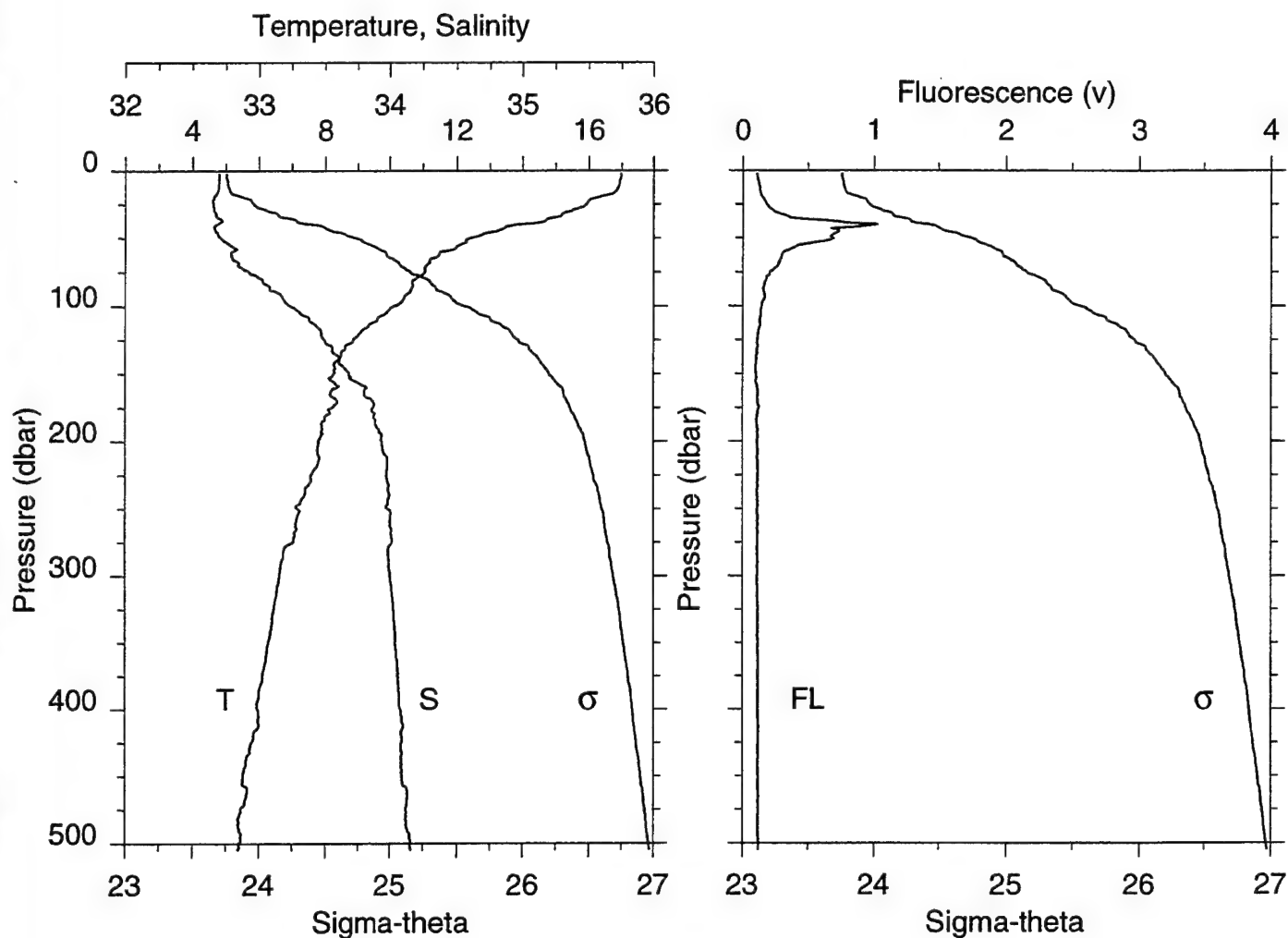
STAN NO 10 LAT: 37 46.1 N LONG: 128 29.8 W
05 SEP 93 732 GMT DEPTH 2250

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.970	32.648	16.970	23.717	417.1	0.083	0.23
10	16.768	32.647	16.767	23.764	412.9	0.416	0.24
20	16.155	32.652	16.152	23.909	399.3	0.823	0.28
30	15.693	32.649	15.688	24.011	389.9	1.219	0.30
40	15.235	32.666	15.229	24.125	379.3	1.605	0.38
50	14.783	32.694	14.776	24.243	368.3	1.979	0.66
60	13.742	32.782	13.734	24.529	341.3	2.335	2.18
70	12.580	33.012	12.571	24.937	302.6	2.659	1.43
80	10.328	32.962	10.319	25.307	267.2	2.943	0.37
90	10.327	33.185	10.317	25.482	250.9	3.202	0.20
100	9.985	33.255	9.974	25.595	240.3	3.448	0.21
110	9.798	33.301	9.786	25.661	234.2	3.686	0.22
120	9.561	33.362	9.547	25.748	226.0	3.917	0.25
130	9.258	33.444	9.244	25.862	215.4	4.137	0.19
140	9.017	33.553	9.002	25.985	203.8	4.347	0.12
150	8.950	33.654	8.935	26.075	195.5	4.547	0.12
175	8.255	33.722	8.237	26.235	180.5	5.016	0.11
200	8.030	33.868	8.010	26.383	166.9	5.451	0.11
225	7.739	33.934	7.717	26.479	158.1	5.857	0.11
250	7.355	33.961	7.331	26.555	151.2	6.243	0.11
275	7.151	34.002	7.125	26.615	145.7	6.614	0.12
300	7.159	34.066	7.131	26.665	141.4	6.973	0.12
350	6.410	34.033	6.379	26.740	134.6	7.662	0.11
400	6.080	34.074	6.045	26.815	127.9	8.316	0.12
450	5.689	34.097	5.652	26.883	121.8	8.940	0.12
500	5.341	34.120	5.300	26.943	116.3	9.535	0.12
506	5.315	34.125	5.274	26.950	115.8	9.604	0.12



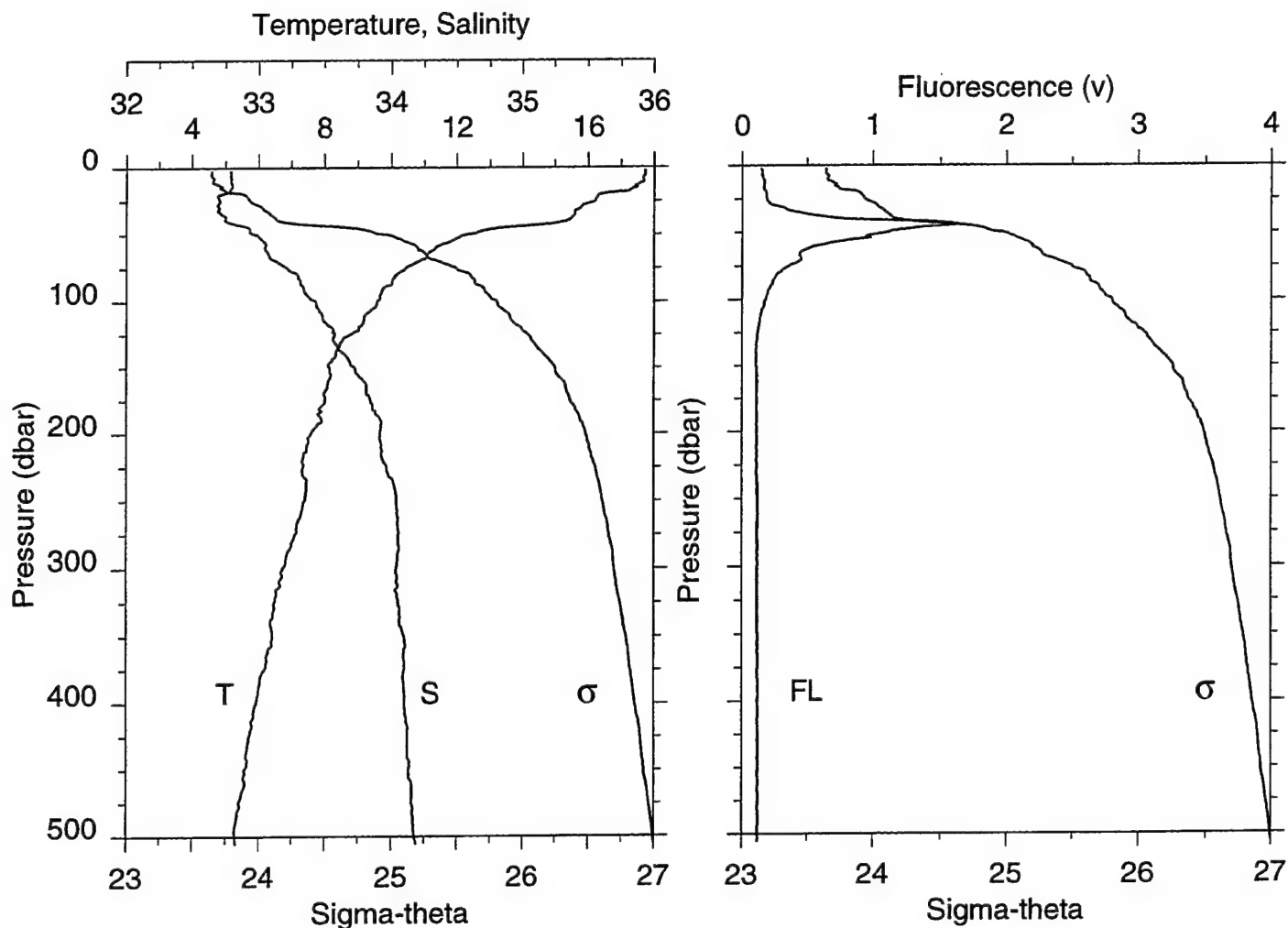
STANNO 11 LAT: 37 10.2 N LONG: 127 19.3 W
05 SEP 1993 1425 GMT DEPTH 4775

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.630	32.803	17.629	23.680	420.6	0.084	0.12
10	17.640	32.808	17.639	23.682	420.7	0.421	0.12
20	17.645	32.808	17.642	23.681	421.1	0.842	0.12
30	17.705	32.834	17.700	23.688	420.8	1.262	0.12
40	16.290	32.653	16.283	23.879	402.8	1.676	0.17
50	15.452	33.011	15.444	24.343	358.9	2.061	0.25
60	14.030	32.946	14.022	24.596	334.9	2.404	0.23
70	13.285	32.948	13.276	24.749	320.5	2.731	0.19
80	12.554	32.921	12.544	24.872	308.9	3.046	0.29
90	12.044	33.013	12.033	25.040	293.1	3.346	0.32
100	11.897	33.108	11.884	25.142	283.7	3.636	0.26
110	11.313	33.174	11.300	25.300	268.8	3.911	0.22
120	10.177	33.207	10.163	25.525	247.4	4.170	0.19
130	9.359	33.282	9.345	25.718	229.0	4.410	0.16
140	8.932	33.375	8.917	25.859	215.7	4.632	0.11
150	8.595	33.463	8.579	25.980	204.4	4.841	0.10
175	8.083	33.650	8.066	26.204	183.4	5.326	0.09
200	7.715	33.801	7.696	26.377	167.3	5.761	0.10
225	7.464	33.907	7.442	26.496	156.3	6.167	0.10
250	7.060	33.946	7.036	26.583	148.3	6.546	0.10
275	6.787	33.963	6.762	26.634	143.7	6.910	0.11
300	6.504	33.992	6.478	26.695	138.1	7.263	0.11
350	6.114	34.020	6.084	26.768	131.7	7.937	0.11
400	5.744	34.050	5.711	26.838	125.4	8.578	0.11
450	5.384	34.079	5.347	26.905	119.4	9.190	0.11
500	5.097	34.115	5.058	26.968	113.7	9.773	0.11
506	5.093	34.124	5.053	26.975	113.1	9.841	0.12



STA NO 12 LAT: 37 20.0 N LONG: 127 20.1 W
05 SEP 1993 1901 GMT DEPTH 4750

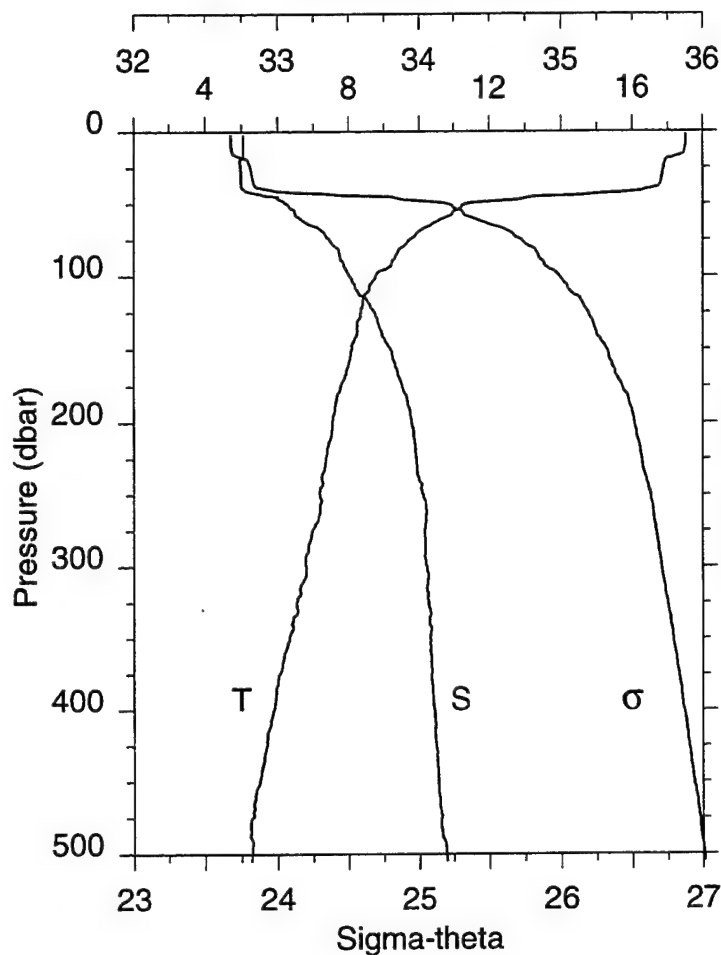
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.978	32.697	16.977	23.754	413.6	0.083	0.11
10	16.930	32.696	16.928	23.764	412.9	0.413	0.12
20	16.268	32.661	16.265	23.890	401.1	0.823	0.15
30	15.485	32.661	15.480	24.066	384.7	1.217	0.24
40	13.815	32.674	13.810	24.430	350.1	1.587	1.02
50	12.386	32.714	12.380	24.743	320.5	1.923	0.69
60	11.503	32.792	11.496	24.968	299.2	2.233	0.32
70	11.095	32.841	11.086	25.080	288.8	2.527	0.27
80	10.773	33.026	10.763	25.280	269.9	2.808	0.18
90	10.585	33.148	10.574	25.409	257.9	3.073	0.16
100	10.108	33.244	10.097	25.565	243.2	3.324	0.14
110	9.610	33.378	9.598	25.753	225.5	3.558	0.13
120	9.044	33.470	9.032	25.916	210.0	3.774	0.12
130	8.599	33.550	8.585	26.048	197.6	3.979	0.11
140	8.347	33.605	8.333	26.129	190.0	4.174	0.10
150	8.238	33.678	8.223	26.203	183.1	4.360	0.10
175	8.185	33.867	8.167	26.360	168.7	4.797	0.12
200	7.799	33.938	7.780	26.472	158.3	5.205	0.11
225	7.557	33.975	7.535	26.537	152.6	5.594	0.11
250	7.183	33.987	7.159	26.599	146.9	5.968	0.11
275	7.036	34.018	7.010	26.644	142.9	6.329	0.12
300	6.627	34.003	6.600	26.688	138.9	6.681	0.11
350	6.289	34.043	6.259	26.764	132.2	7.357	0.12
400	5.980	34.084	5.946	26.836	125.8	8.000	0.12
450	5.527	34.093	5.489	26.899	120.1	8.616	0.12
500	5.395	34.155	5.354	26.964	114.4	9.202	0.12
505	5.367	34.159	5.326	26.970	113.9	9.259	0.12



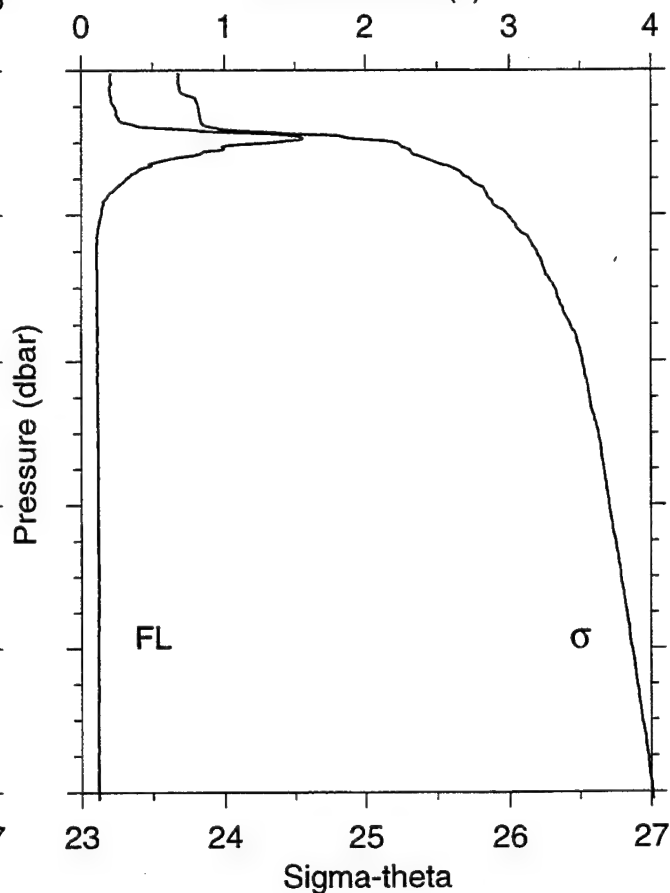
STANO 13 LAT: 37 29.9 N LONG: 127 19.9 W
05 SEP 1993 2225 GMT DEPTH 4670

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.722	32.789	17.722	23.648	423.7	0.085	0.14
10	17.689	32.791	17.688	23.657	423.1	0.423	0.16
20	16.382	32.705	16.379	23.898	400.4	0.839	0.18
30	15.792	32.706	15.788	24.032	387.9	1.234	0.26
40	15.339	32.765	15.333	24.178	374.3	1.616	0.81
50	12.268	32.992	12.261	24.981	297.8	1.947	1.10
60	11.330	33.049	11.323	25.200	277.2	2.233	0.56
70	10.792	33.145	10.784	25.370	261.1	2.504	0.45
80	10.139	33.299	10.130	25.602	239.2	2.754	0.28
90	9.745	33.344	9.735	25.704	229.7	2.989	0.22
100	9.572	33.434	9.561	25.803	220.5	3.215	0.18
110	9.210	33.483	9.198	25.899	211.4	3.432	0.14
120	9.021	33.561	9.008	25.991	202.9	3.641	0.13
130	8.505	33.572	8.492	26.079	194.5	3.839	0.12
140	8.345	33.655	8.331	26.168	186.3	4.030	0.11
150	8.151	33.726	8.136	26.254	178.3	4.212	0.11
175	8.015	33.843	7.997	26.366	168.1	4.644	0.11
200	7.596	33.915	7.576	26.484	157.2	5.048	0.11
225	7.362	33.966	7.341	26.557	150.5	5.434	0.11
250	7.409	34.041	7.385	26.610	146.0	5.804	0.12
275	7.117	34.053	7.091	26.661	141.4	6.163	0.12
300	6.745	34.038	6.717	26.699	137.9	6.511	0.12
350	6.430	34.098	6.399	26.789	129.9	7.182	0.12
400	5.926	34.100	5.891	26.856	123.9	7.817	0.12
450	5.567	34.130	5.530	26.923	117.8	8.419	0.12
500	5.280	34.174	5.240	26.993	111.6	8.991	0.12
506	5.306	34.187	5.265	27.000	111.0	9.058	0.12

Temperature, Salinity

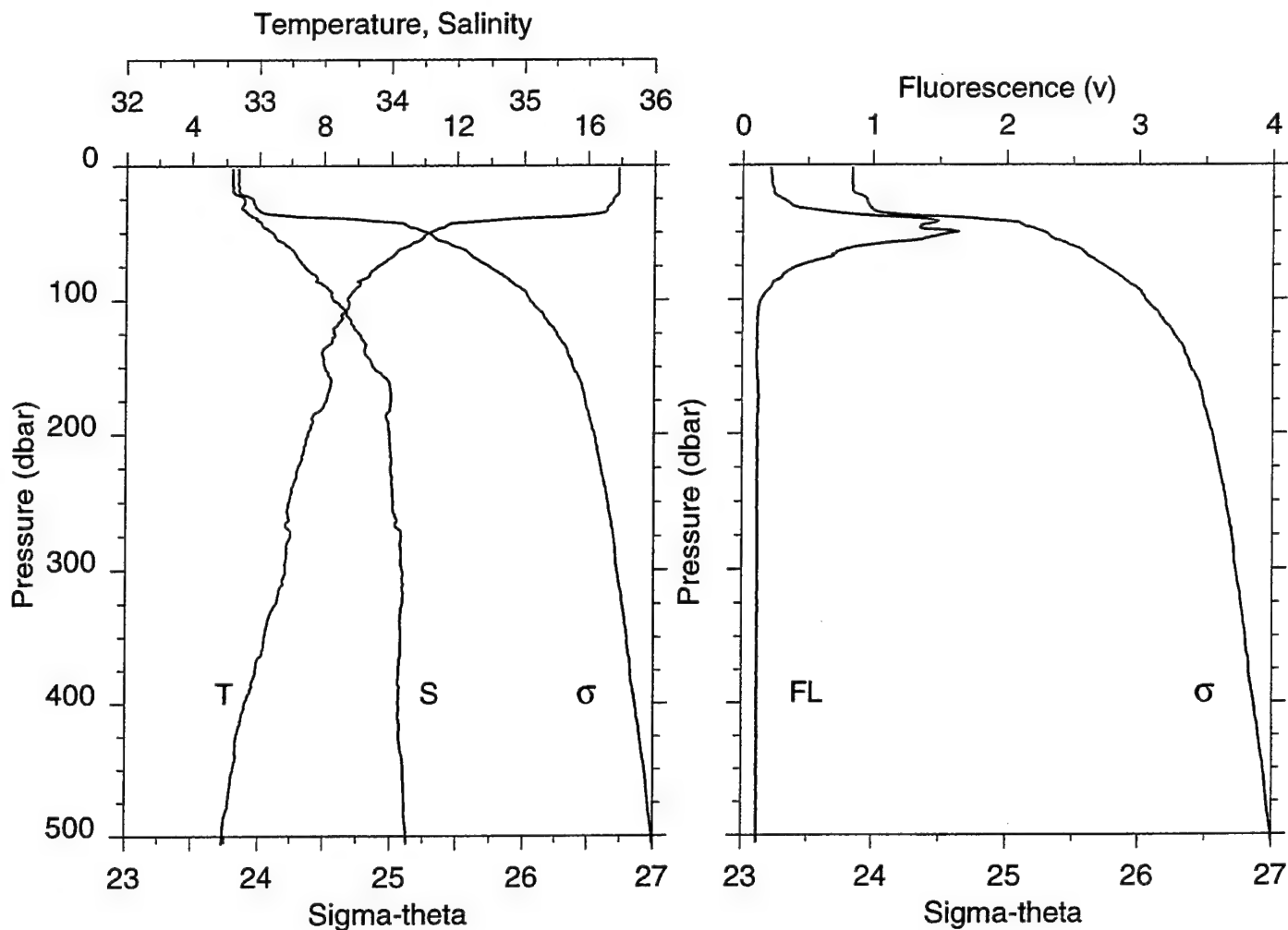


Fluorescence (v)



STA NO 14 LAT: 37 42.0 N LONG: 127 20.0 W
06 SEP 1993 227 GMT DEPTH 4630

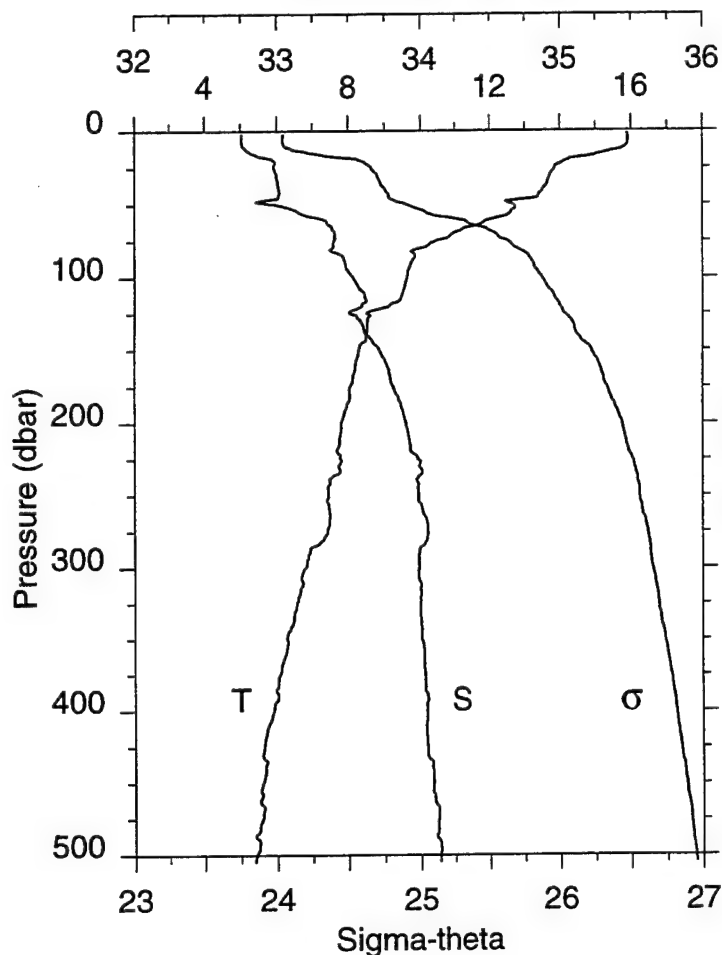
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.513	32.764	17.513	23.678	420.8	0.084	0.21
10	17.511	32.764	17.510	23.679	421.0	0.421	0.21
20	16.938	32.740	16.934	23.797	410.1	0.839	0.21
30	16.846	32.747	16.841	23.824	407.8	1.247	0.24
40	16.394	32.772	16.388	23.947	396.3	1.653	0.56
50	11.334	33.068	11.328	25.213	275.7	1.985	1.34
60	10.698	33.157	10.691	25.395	258.5	2.253	0.70
70	9.943	33.329	9.935	25.658	233.6	2.498	0.40
80	9.525	33.413	9.516	25.793	220.9	2.726	0.26
90	9.229	33.460	9.220	25.878	213.1	2.943	0.16
100	8.761	33.508	8.750	25.989	202.6	3.151	0.14
110	8.572	33.563	8.561	26.062	195.9	3.350	0.12
120	8.394	33.652	8.382	26.159	186.8	3.541	0.11
130	8.271	33.705	8.258	26.219	181.3	3.725	0.11
140	8.231	33.738	8.217	26.251	178.4	3.905	0.11
150	8.094	33.798	8.079	26.318	172.1	4.080	0.11
175	7.784	33.880	7.767	26.429	162.0	4.498	0.11
200	7.551	33.948	7.532	26.516	154.1	4.891	0.11
225	7.363	33.979	7.342	26.568	149.5	5.271	0.11
250	7.193	34.031	7.169	26.632	143.8	5.638	0.12
275	6.981	34.039	6.956	26.668	140.6	5.994	0.12
300	6.805	34.057	6.778	26.706	137.3	6.341	0.12
350	6.332	34.081	6.301	26.789	129.9	7.008	0.12
400	5.893	34.109	5.859	26.866	122.9	7.640	0.12
450	5.508	34.137	5.471	26.936	116.6	8.238	0.12
500	5.290	34.195	5.249	27.008	110.1	8.803	0.12
505	5.281	34.199	5.240	27.012	109.8	8.858	0.12



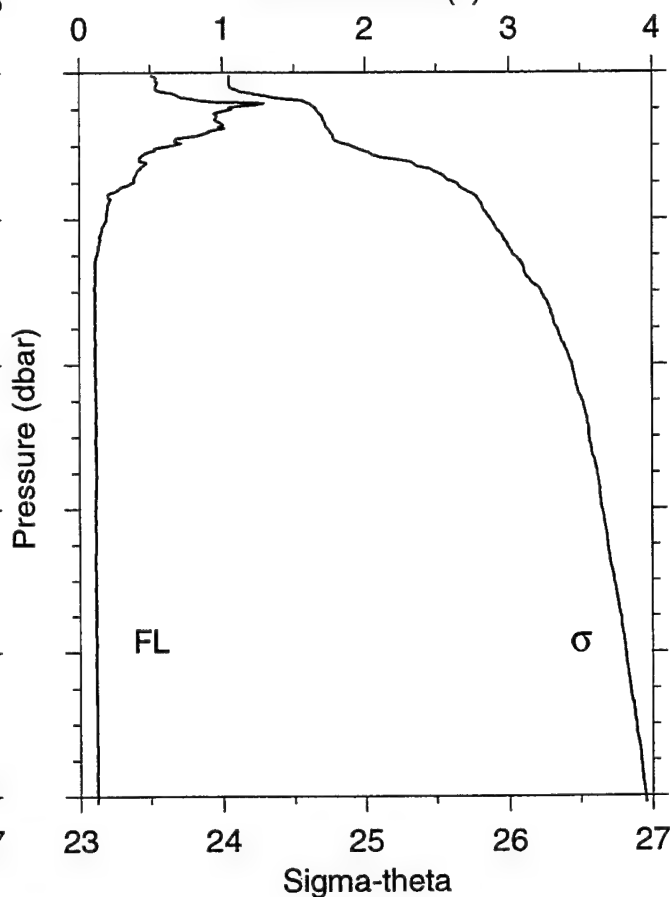
STA NO 15 LAT: 38 10.1 N LONG: 127 20.1 W
06 SEP 1993 702 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.928	32.799	16.928	23.843	405.1	0.081	0.21
10	16.929	32.799	16.927	23.843	405.3	0.405	0.22
20	16.930	32.807	16.926	23.850	405.0	0.811	0.23
30	16.645	32.875	16.640	23.969	394.0	1.208	0.38
40	13.373	32.977	13.367	24.754	319.3	1.585	1.37
50	11.138	33.105	11.132	25.277	269.5	1.872	1.64
60	10.506	33.221	10.499	25.478	250.6	2.133	0.95
70	9.873	33.313	9.865	25.658	233.7	2.374	0.61
80	9.360	33.407	9.352	25.815	218.9	2.600	0.33
90	9.006	33.518	8.996	25.959	205.4	2.812	0.22
100	8.704	33.571	8.694	26.047	197.1	3.012	0.14
110	8.551	33.667	8.539	26.146	187.9	3.205	0.12
120	8.328	33.727	8.316	26.227	180.3	3.390	0.11
130	8.265	33.796	8.252	26.291	174.4	3.567	0.11
140	7.959	33.806	7.945	26.345	169.4	3.738	0.11
150	8.043	33.870	8.029	26.383	166.0	3.906	0.11
175	8.080	34.001	8.062	26.480	157.3	4.307	0.12
200	7.525	33.990	7.506	26.553	150.6	4.692	0.11
225	7.222	33.999	7.201	26.603	146.2	5.064	0.12
250	6.943	34.017	6.920	26.655	141.4	5.423	0.12
275	6.983	34.077	6.958	26.698	137.8	5.772	0.12
300	6.828	34.086	6.801	26.726	135.4	6.113	0.12
350	6.193	34.075	6.162	26.802	128.6	6.772	0.12
400	5.592	34.060	5.559	26.864	122.8	7.403	0.12
450	5.246	34.096	5.210	26.934	116.5	8.002	0.11
500	4.945	34.121	4.905	26.989	111.5	8.571	0.12
506	4.918	34.125	4.879	26.995	111.0	8.638	0.12

Temperature, Salinity

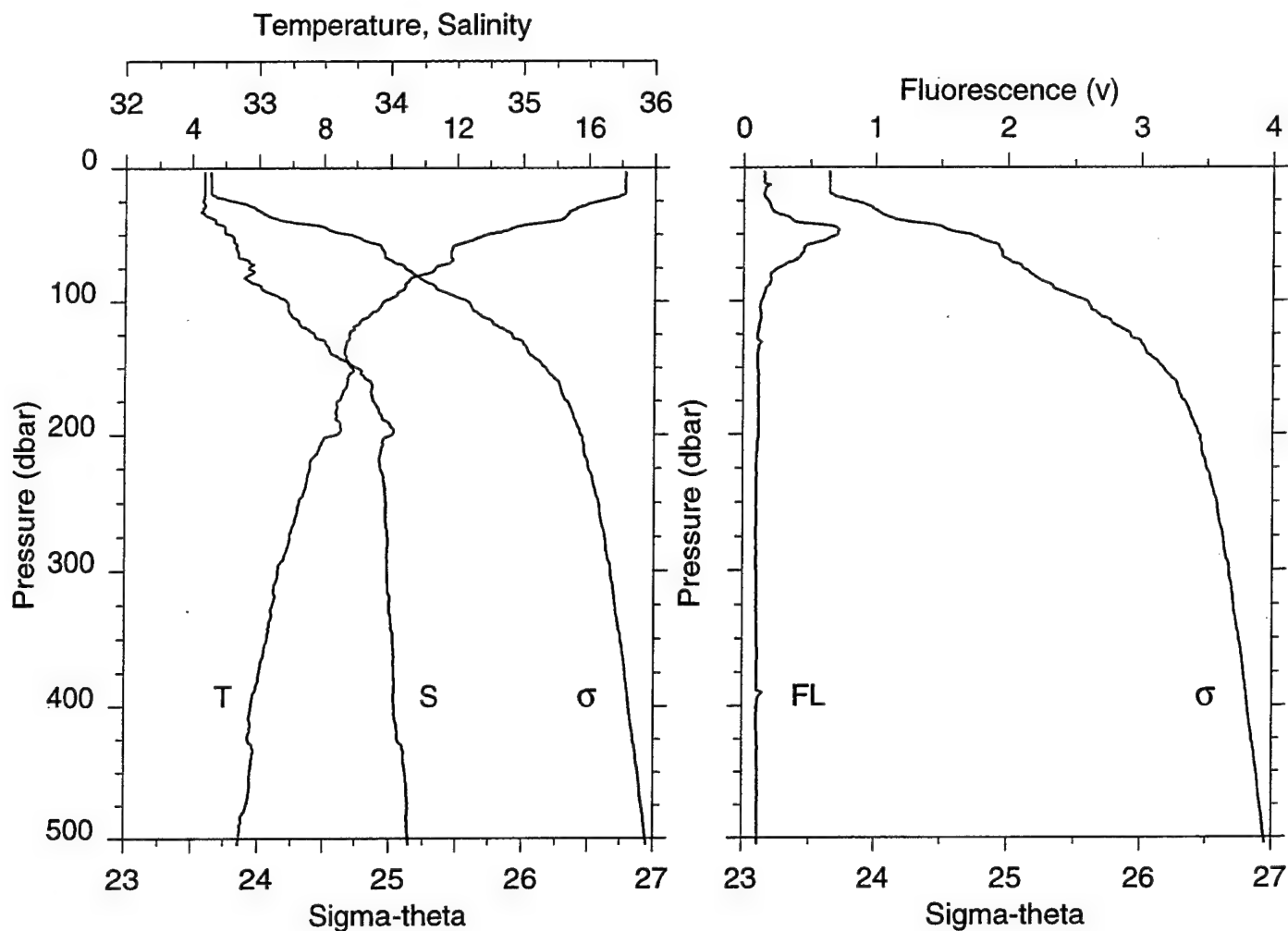


Fluorescence (v)



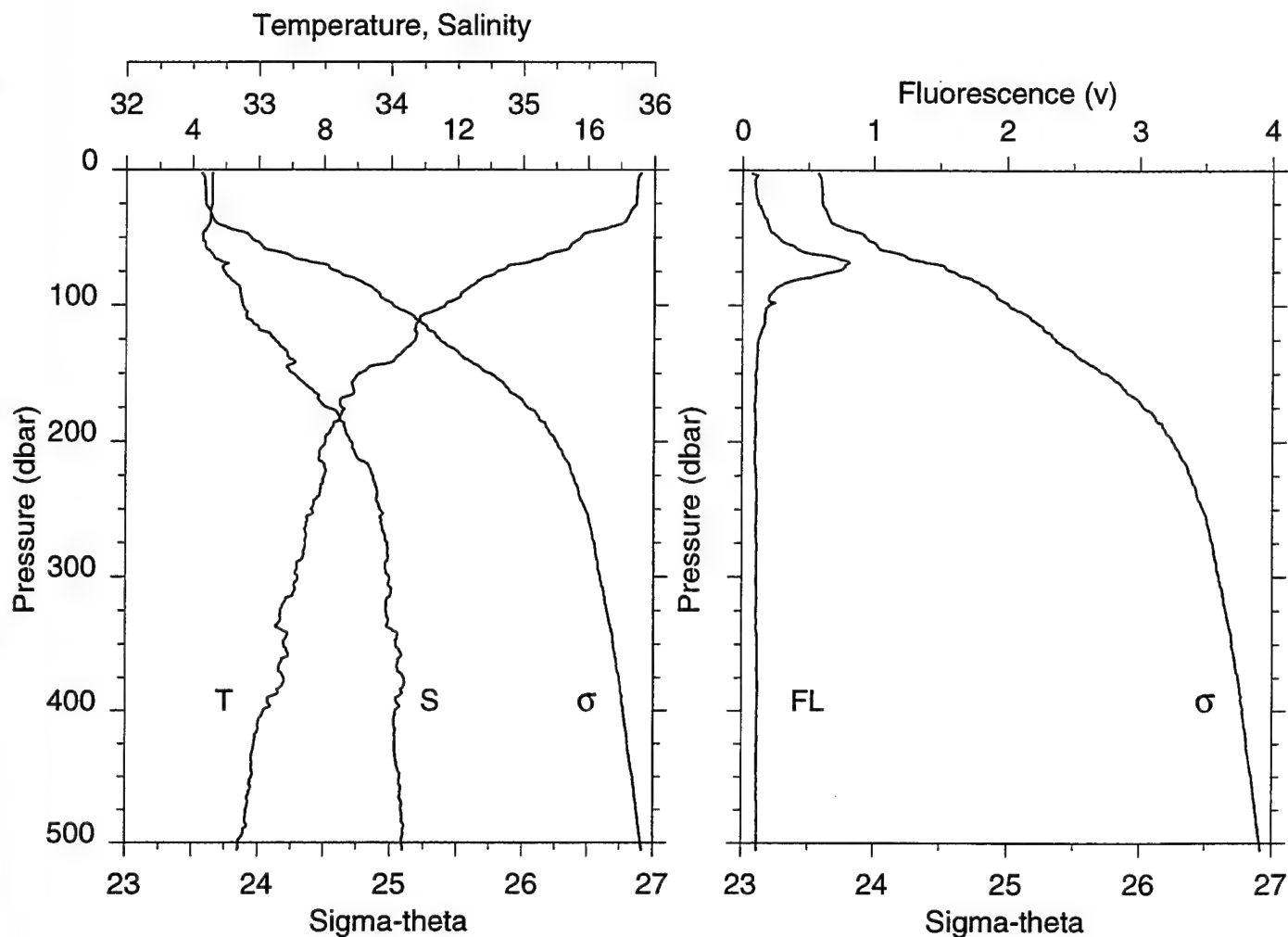
STANO 16 LAT: 38 20.1 N LONG: 127 20.1 W
06 SEP 1993 1140 GMT DEPTH 4500

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.902	32.760	15.901	24.048	385.5	0.077	0.51
10	15.901	32.763	15.899	24.051	385.5	0.386	0.54
20	14.240	32.974	14.238	24.573	336.0	0.751	0.94
30	13.724	33.000	13.719	24.701	324.1	1.079	0.96
40	13.516	33.017	13.511	24.756	319.1	1.402	0.91
50	12.688	33.002	12.681	24.909	304.8	1.716	0.63
60	12.096	33.321	12.088	25.269	270.7	2.008	0.42
70	10.939	33.407	10.931	25.548	244.3	2.264	0.39
80	9.950	33.386	9.941	25.702	229.7	2.501	0.27
90	9.733	33.481	9.723	25.813	219.4	2.724	0.20
100	9.626	33.536	9.615	25.873	213.8	2.941	0.19
110	9.517	33.606	9.505	25.946	207.1	3.152	0.15
120	9.115	33.596	9.102	26.003	201.8	3.357	0.13
130	8.536	33.584	8.523	26.083	194.2	3.555	0.11
140	8.530	33.634	8.516	26.124	190.5	3.747	0.11
150	8.297	33.715	8.282	26.223	181.2	3.933	0.11
175	8.049	33.809	8.031	26.334	171.1	4.373	0.11
200	7.808	33.898	7.788	26.439	161.5	4.788	0.11
225	7.788	33.982	7.766	26.509	155.3	5.186	0.11
250	7.444	33.986	7.420	26.561	150.6	5.566	0.11
275	7.420	34.054	7.394	26.619	145.6	5.937	0.12
300	6.813	33.989	6.785	26.652	142.4	6.296	0.11
350	6.282	34.006	6.252	26.735	134.9	6.989	0.11
400	5.900	34.043	5.866	26.814	127.8	7.645	0.11
450	5.599	34.089	5.561	26.887	121.3	8.268	0.12
500	5.424	34.139	5.383	26.948	116.0	8.861	0.12
505	5.388	34.141	5.346	26.954	115.5	8.919	0.12



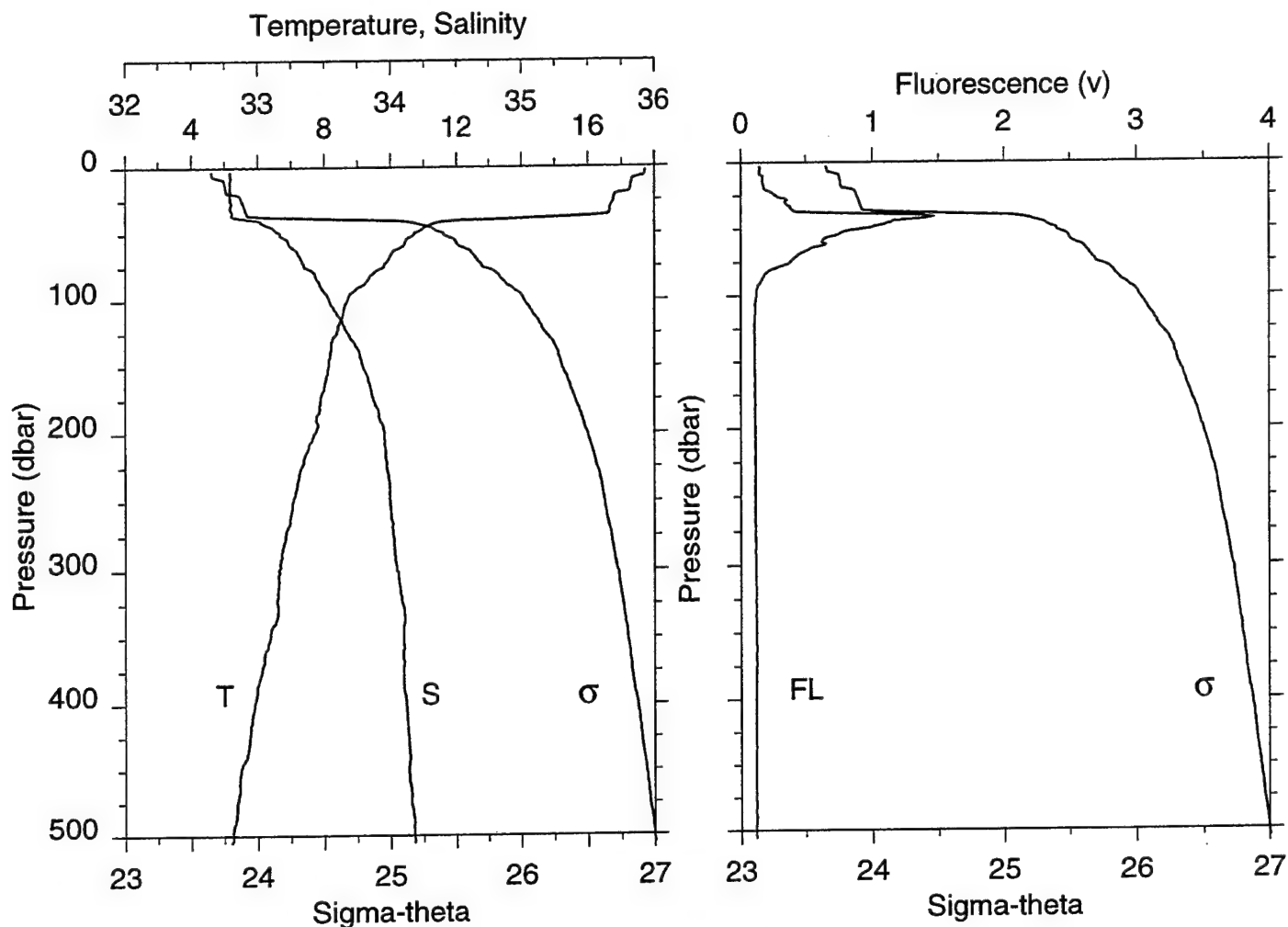
STANO 17 LAT: 38 30.0 N LONG: 127 20.1 W
06 SEP 1993 1523 GMT DEPTH 4600

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	17.111	32.592	17.111	23.642	424.3	0.127	0.15
10	17.107	32.592	17.105	23.643	424.4	0.424	0.16
20	17.071	32.592	17.068	23.652	423.9	0.849	0.15
30	15.615	32.580	15.610	23.975	393.3	1.257	0.21
40	14.887	32.680	14.881	24.211	371.1	1.642	0.37
50	12.869	32.794	12.863	24.712	323.5	1.987	0.70
60	11.856	32.833	11.848	24.935	302.4	2.299	0.45
70	11.803	32.927	11.794	25.019	294.7	2.599	0.37
80	10.871	32.923	10.861	25.183	279.1	2.885	0.21
90	10.405	33.019	10.394	25.339	264.4	3.156	0.17
100	9.807	33.206	9.796	25.585	241.1	3.409	0.14
110	9.405	33.243	9.393	25.680	232.3	3.647	0.13
120	8.941	33.358	8.929	25.844	216.8	3.871	0.12
130	8.720	33.510	8.707	25.998	202.4	4.082	0.13
140	8.682	33.570	8.668	26.051	197.5	4.282	0.11
150	8.887	33.765	8.871	26.171	186.3	4.473	0.11
175	8.433	33.881	8.415	26.333	171.4	4.918	0.12
200	8.410	34.013	8.389	26.440	161.6	5.334	0.12
225	7.566	33.931	7.544	26.500	156.0	5.730	0.10
250	7.222	33.971	7.199	26.581	148.6	6.110	0.10
275	6.941	33.982	6.915	26.628	144.4	6.477	0.10
300	6.587	33.981	6.560	26.676	140.0	6.833	0.10
350	6.267	34.023	6.237	26.751	133.4	7.518	0.11
400	5.810	34.034	5.776	26.818	127.4	8.169	0.11
450	5.788	34.118	5.749	26.887	121.5	8.792	0.12
500	5.474	34.143	5.433	26.945	116.3	9.387	0.12
505	5.438	34.145	5.397	26.951	115.8	9.445	0.12



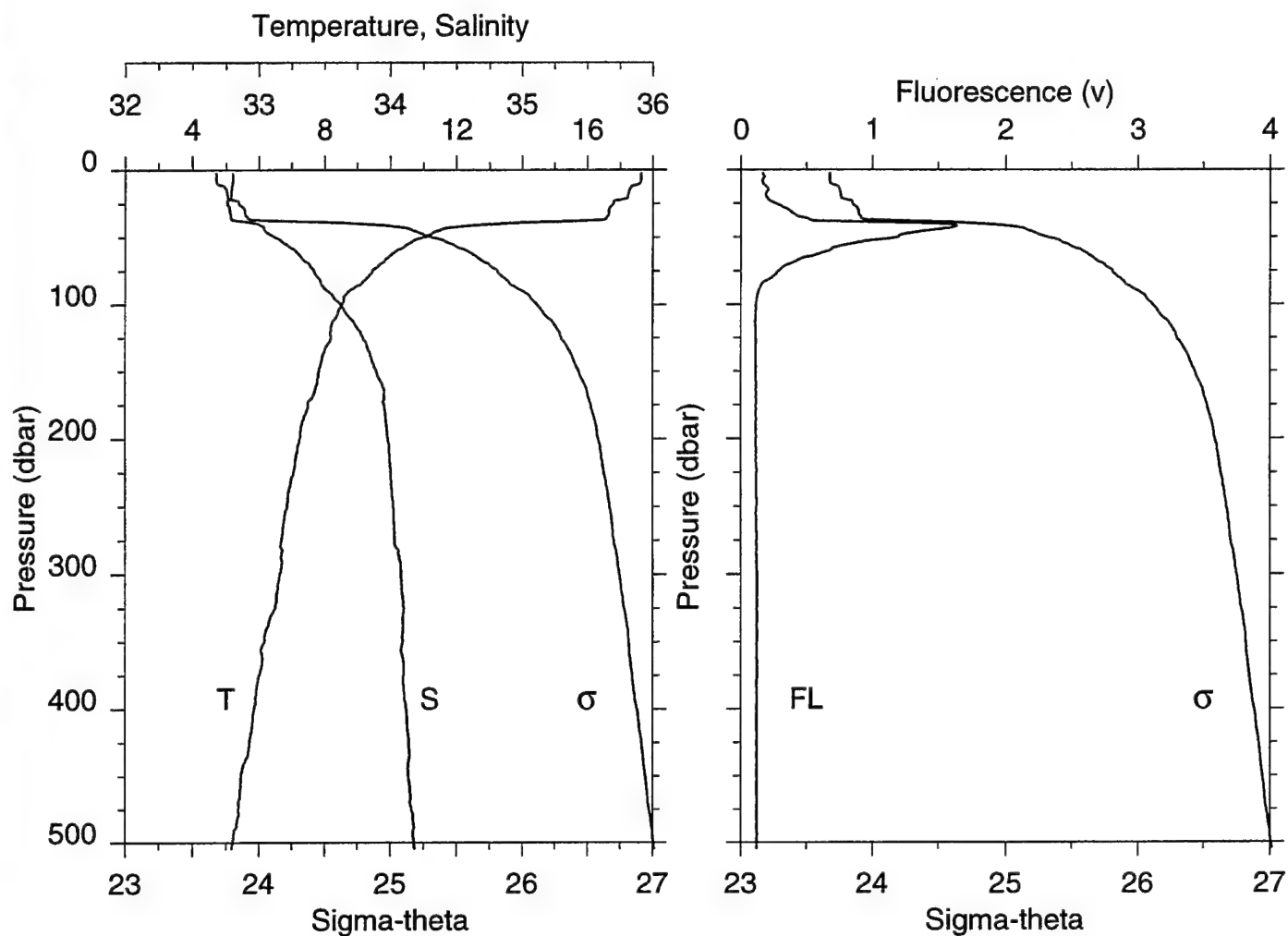
STA NO 18 LAT: 38 40.0 N LONG: 127 20.1 W
06 SEP 1993 1855 GMT DEPTH 4580

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.605	32.649	17.604	23.569	431.3	0.086	0.07
10	17.496	32.648	17.494	23.594	429.1	0.430	0.10
20	17.473	32.648	17.470	23.600	428.9	0.859	0.10
30	17.303	32.638	17.298	23.633	426.0	1.287	0.15
40	17.023	32.628	17.017	23.692	420.8	1.711	0.19
50	15.766	32.580	15.758	23.942	397.1	2.119	0.27
60	15.124	32.633	15.115	24.124	380.0	2.509	0.45
70	13.648	32.745	13.638	24.520	342.4	2.873	0.77
80	12.752	32.788	12.742	24.731	322.4	3.207	0.45
90	12.183	32.861	12.171	24.897	306.8	3.521	0.23
100	11.632	32.879	11.620	25.013	295.9	3.823	0.20
110	10.856	32.915	10.843	25.180	280.0	4.110	0.17
120	10.762	33.076	10.747	25.322	266.8	4.384	0.14
130	10.553	33.163	10.537	25.426	257.1	4.647	0.12
140	10.099	33.257	10.083	25.577	242.8	4.896	0.11
150	9.070	33.263	9.054	25.750	226.3	5.131	0.10
175	8.538	33.522	8.520	26.036	199.5	5.661	0.10
200	8.038	33.706	8.018	26.256	179.0	6.130	0.10
225	8.007	33.869	7.985	26.388	166.9	6.562	0.11
250	7.613	33.917	7.589	26.483	158.1	6.969	0.11
275	7.434	33.974	7.408	26.554	151.7	7.355	0.11
300	7.195	33.990	7.167	26.601	147.5	7.730	0.11
350	6.782	34.041	6.750	26.698	138.9	8.444	0.12
400	6.177	34.041	6.142	26.777	131.6	9.120	0.12
450	5.816	34.074	5.778	26.849	125.1	9.763	0.12
500	5.410	34.086	5.369	26.908	119.8	10.376	0.12
506	5.398	34.094	5.356	26.916	119.0	10.447	0.12



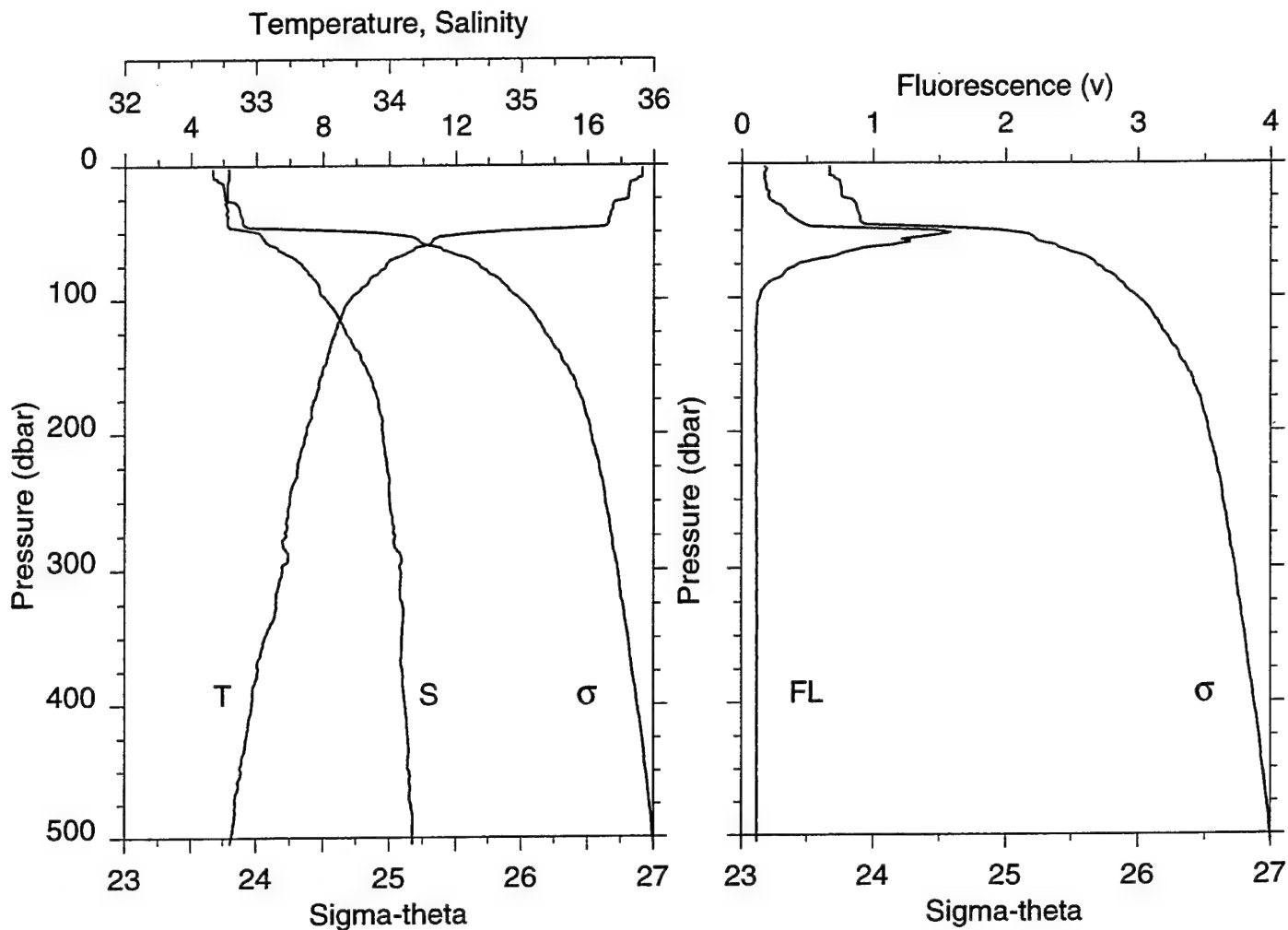
STANO 19 LAT: 37 55.0 N LONG: 127 20.0 W
07 SEP 1993 104 GMT DEPTH 4575

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	17.730	32.795	17.730	23.650	423.5	0.127	0.14
10	17.322	32.795	17.320	23.748	414.4	0.421	0.17
20	16.924	32.791	16.921	23.839	406.1	0.835	0.18
30	16.670	32.796	16.665	23.903	400.3	1.237	0.34
40	12.000	33.025	11.995	25.057	290.3	1.617	1.38
50	10.707	33.168	10.701	25.402	257.6	1.887	0.92
60	10.315	33.259	10.308	25.541	244.6	2.138	0.62
70	9.915	33.332	9.907	25.665	233.0	2.375	0.44
80	9.467	33.430	9.458	25.816	218.8	2.602	0.25
90	9.020	33.478	9.010	25.925	208.5	2.816	0.15
100	8.698	33.541	8.688	26.024	199.3	3.019	0.12
110	8.567	33.598	8.556	26.090	193.2	3.215	0.11
120	8.419	33.653	8.407	26.156	187.1	3.405	0.11
130	8.248	33.716	8.235	26.231	180.1	3.589	0.11
140	8.186	33.767	8.172	26.281	175.6	3.767	0.11
150	8.136	33.792	8.121	26.308	173.2	3.941	0.11
175	7.894	33.871	7.877	26.405	164.3	4.362	0.11
200	7.707	33.954	7.687	26.498	155.9	4.762	0.11
225	7.314	33.972	7.293	26.568	149.4	5.143	0.11
250	7.062	33.998	7.039	26.624	144.4	5.510	0.11
275	6.831	34.022	6.806	26.675	139.9	5.866	0.12
300	6.636	34.045	6.609	26.719	135.9	6.211	0.12
350	6.374	34.098	6.343	26.796	129.2	6.873	0.12
400	5.910	34.118	5.876	26.871	122.4	7.503	0.12
450	5.497	34.136	5.460	26.937	116.5	8.101	0.12
500	5.259	34.177	5.218	26.998	111.1	8.669	0.12
506	5.218	34.179	5.177	27.004	110.6	8.736	0.12



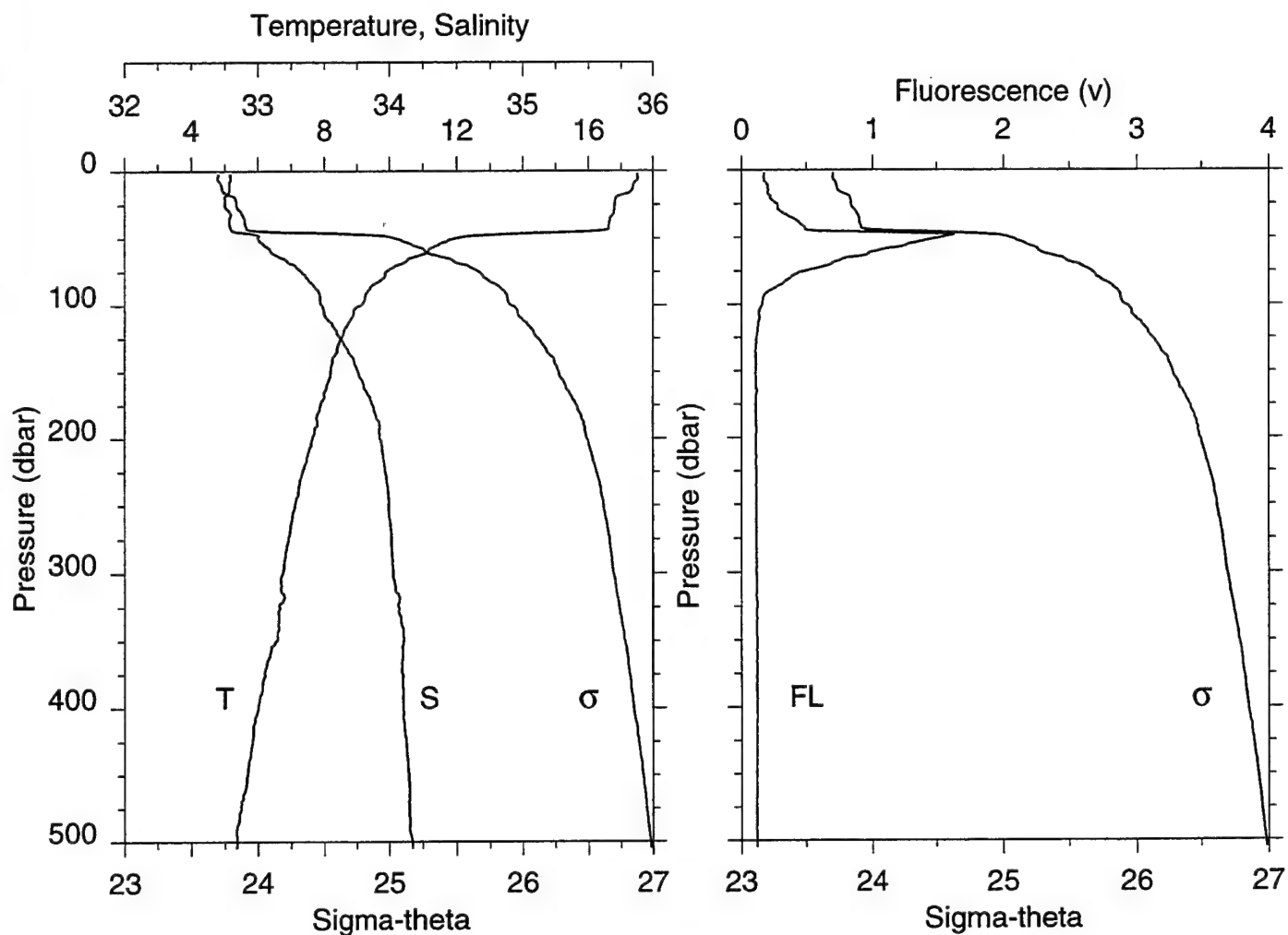
STANO 20 LAT: 37 55.0 N LONG: 127 20.0 W
07 SEP 1993 450 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.642	32.799	17.641	23.674	421.2	0.084	0.16
10	17.609	32.797	17.607	23.682	420.8	0.421	0.17
20	17.239	32.785	17.236	23.760	413.6	0.836	0.19
30	16.654	32.776	16.649	23.891	401.4	1.242	0.37
40	13.216	32.989	13.211	24.795	315.4	1.629	1.49
50	10.979	33.125	10.973	25.321	265.3	1.911	1.20
60	10.174	33.279	10.167	25.581	240.8	2.163	0.68
70	9.670	33.385	9.662	25.747	225.1	2.396	0.36
80	9.285	33.456	9.276	25.866	214.0	2.616	0.23
90	8.731	33.529	8.721	26.010	200.4	2.824	0.13
100	8.531	33.623	8.521	26.114	190.7	3.019	0.11
110	8.335	33.694	8.323	26.200	182.7	3.206	0.11
120	8.188	33.774	8.176	26.285	174.8	3.384	0.11
130	8.082	33.822	8.069	26.339	169.8	3.557	0.11
140	7.923	33.859	7.909	26.391	165.0	3.724	0.11
150	7.828	33.897	7.813	26.435	161.0	3.887	0.11
175	7.493	33.953	7.476	26.528	152.6	4.278	0.11
200	7.247	33.982	7.228	26.586	147.4	4.653	0.11
225	7.065	34.003	7.045	26.627	143.8	5.016	0.12
250	6.873	34.022	6.850	26.669	140.1	5.370	0.12
275	6.702	34.034	6.677	26.702	137.3	5.716	0.12
300	6.644	34.080	6.617	26.746	133.5	6.054	0.12
350	6.178	34.093	6.148	26.818	127.0	6.704	0.12
400	5.859	34.122	5.825	26.881	121.5	7.327	0.12
450	5.457	34.139	5.420	26.944	115.8	7.921	0.12
500	5.196	34.178	5.156	27.006	110.3	8.486	0.12
505	5.161	34.185	5.120	27.015	109.4	8.541	0.12



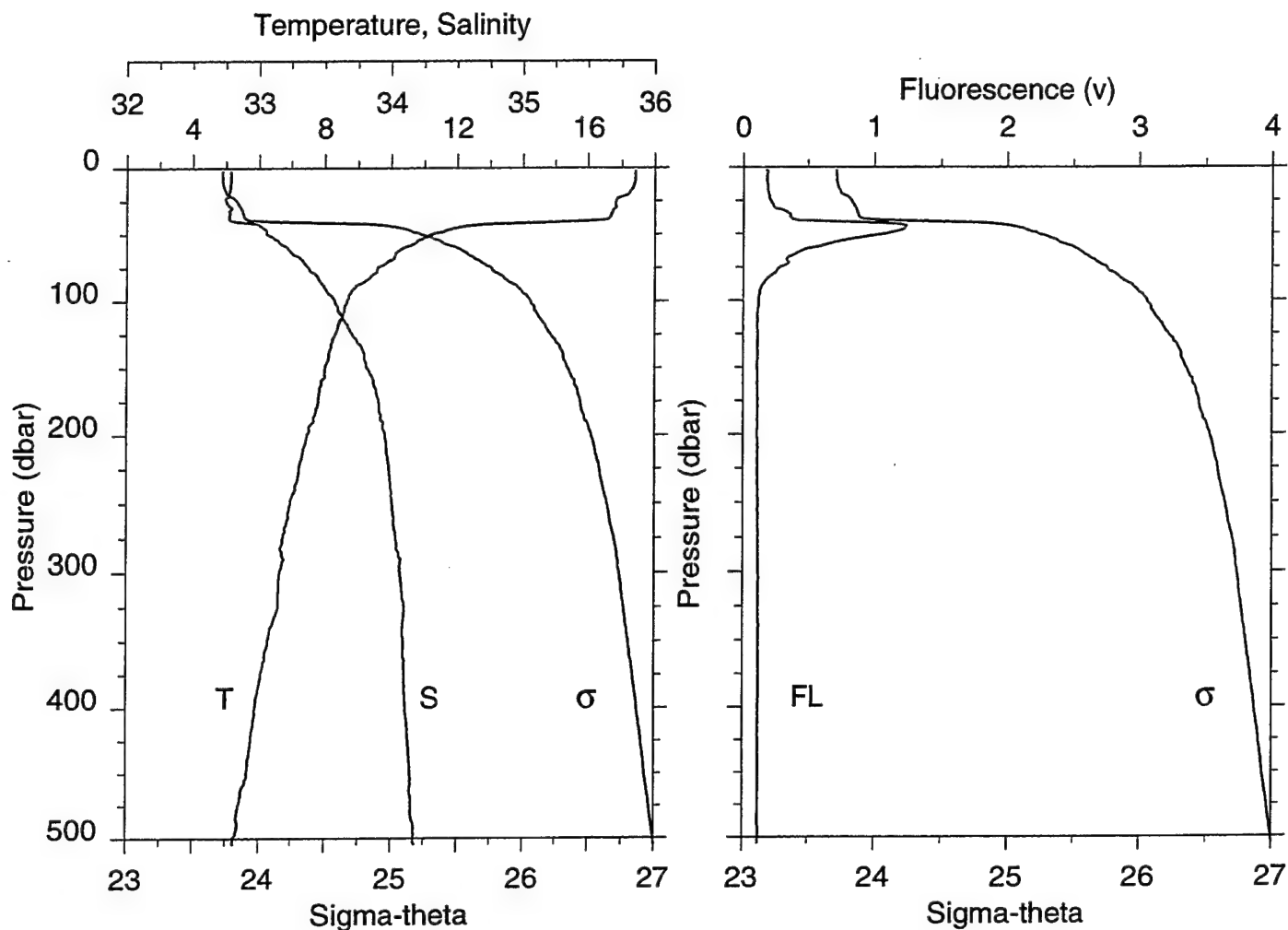
STAN NO 21 LAT: 37 55.2 N LONG: 127 19.9 W
 07 SEP 1993 718 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.641	32.794	17.641	23.671	421.5	0.084	0.17
10	17.515	32.796	17.514	23.703	418.7	0.421	0.18
20	17.235	32.783	17.232	23.760	413.6	0.837	0.19
30	16.762	32.777	16.757	23.866	403.8	1.247	0.26
40	16.638	32.783	16.632	23.900	400.9	1.649	0.39
50	12.729	33.024	12.722	24.918	303.9	2.027	1.45
60	10.976	33.132	10.969	25.327	265.0	2.307	1.20
70	10.047	33.299	10.039	25.618	237.5	2.558	0.68
80	9.677	33.388	9.668	25.749	225.2	2.789	0.34
90	9.211	33.469	9.201	25.888	212.1	3.007	0.19
100	8.802	33.525	8.792	25.996	202.0	3.215	0.14
110	8.579	33.598	8.567	26.088	193.4	3.412	0.12
120	8.425	33.650	8.413	26.153	187.4	3.602	0.11
130	8.276	33.712	8.263	26.223	180.9	3.787	0.11
140	8.159	33.774	8.145	26.290	174.7	3.965	0.11
150	8.017	33.820	8.002	26.347	169.4	4.138	0.11
175	7.735	33.916	7.718	26.464	158.7	4.548	0.11
200	7.499	33.952	7.480	26.526	153.1	4.937	0.11
225	7.240	33.984	7.219	26.589	147.5	5.312	0.11
250	7.010	34.003	6.987	26.635	143.4	5.675	0.12
275	6.897	34.045	6.872	26.684	139.0	6.027	0.12
300	6.783	34.085	6.755	26.731	134.9	6.370	0.12
350	6.262	34.094	6.231	26.807	128.1	7.029	0.12
400	5.885	34.118	5.851	26.874	122.1	7.655	0.12
450	5.564	34.152	5.526	26.941	116.2	8.249	0.12
500	5.262	34.172	5.221	26.993	111.5	8.817	0.12
505	5.226	34.174	5.185	26.999	111.0	8.873	0.12



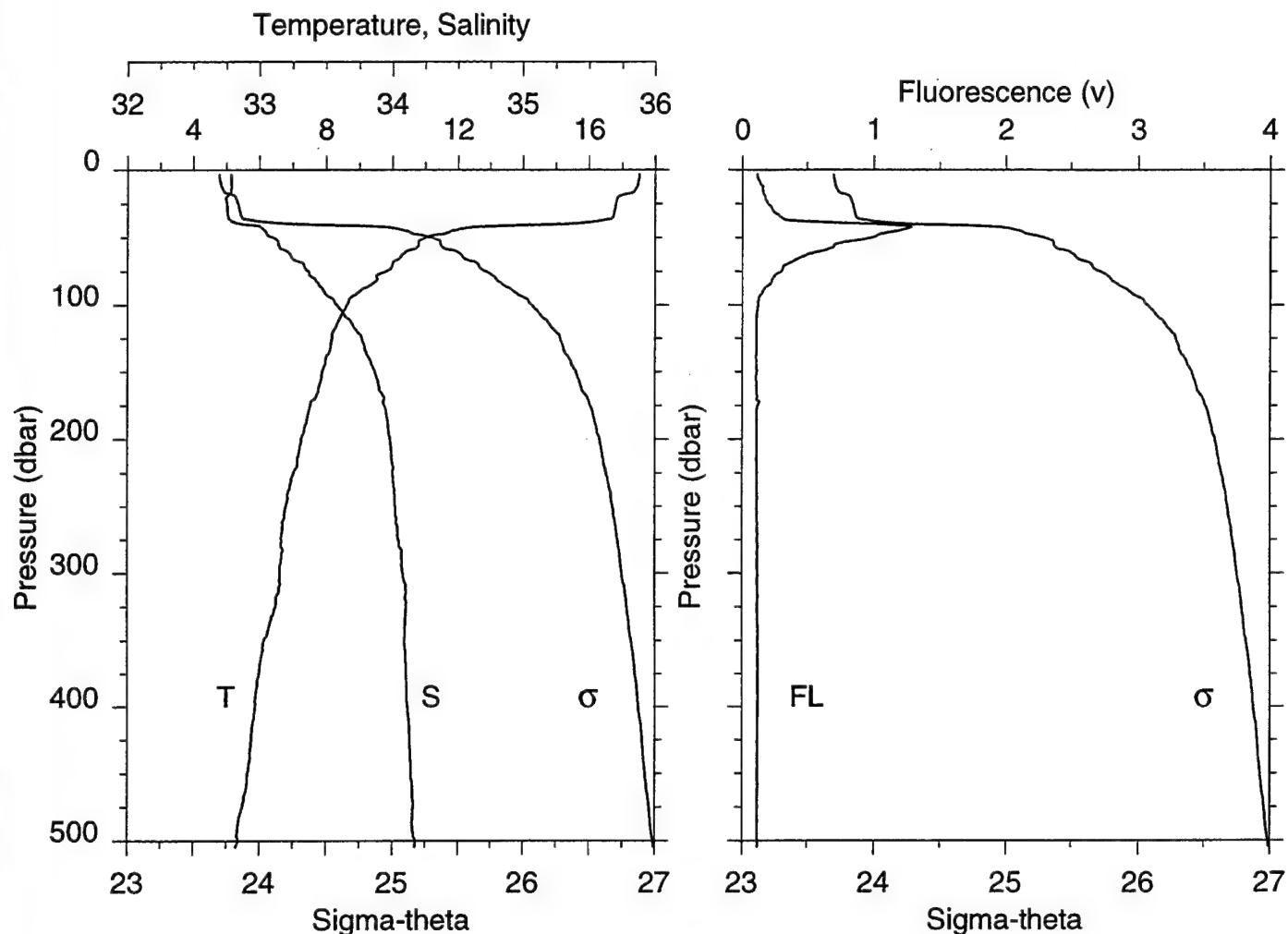
STA NO 22 LAT: 37 55.1 N LONG: 127 20.0 W
07 SEP 1993 937 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.506	32.790	17.506	23.700	418.7	0.084	0.17
10	17.391	32.783	17.389	23.722	416.9	0.418	0.19
20	16.841	32.749	16.838	23.826	407.3	0.832	0.22
30	16.765	32.783	16.760	23.871	403.4	1.238	0.29
40	16.621	32.786	16.615	23.906	400.3	1.640	0.46
50	11.941	33.004	11.935	25.052	291.1	1.996	1.53
60	11.146	33.099	11.139	25.271	270.4	2.275	1.04
70	10.191	33.281	10.183	25.579	241.2	2.531	0.69
80	9.781	33.375	9.772	25.721	227.8	2.765	0.38
90	9.310	33.457	9.301	25.862	214.6	2.985	0.20
100	9.099	33.480	9.088	25.915	209.7	3.198	0.16
110	8.808	33.521	8.796	25.993	202.5	3.404	0.14
120	8.581	33.592	8.569	26.083	194.0	3.602	0.12
130	8.413	33.654	8.399	26.157	187.1	3.792	0.11
140	8.245	33.722	8.231	26.236	179.8	3.976	0.11
150	8.184	33.759	8.169	26.274	176.4	4.155	0.11
175	7.877	33.872	7.859	26.409	164.0	4.581	0.11
200	7.636	33.925	7.616	26.485	157.0	4.981	0.11
225	7.347	33.967	7.325	26.560	150.2	5.364	0.11
250	7.113	33.995	7.090	26.615	145.3	5.733	0.11
275	6.921	34.016	6.895	26.658	141.5	6.091	0.12
300	6.757	34.029	6.730	26.691	138.7	6.441	0.11
350	6.545	34.107	6.513	26.781	130.8	7.115	0.12
400	6.007	34.105	5.973	26.849	124.6	7.752	0.12
450	5.676	34.145	5.638	26.922	118.1	8.358	0.12
500	5.370	34.172	5.329	26.980	112.9	8.935	0.12
505	5.351	34.174	5.310	26.985	112.5	8.992	0.12



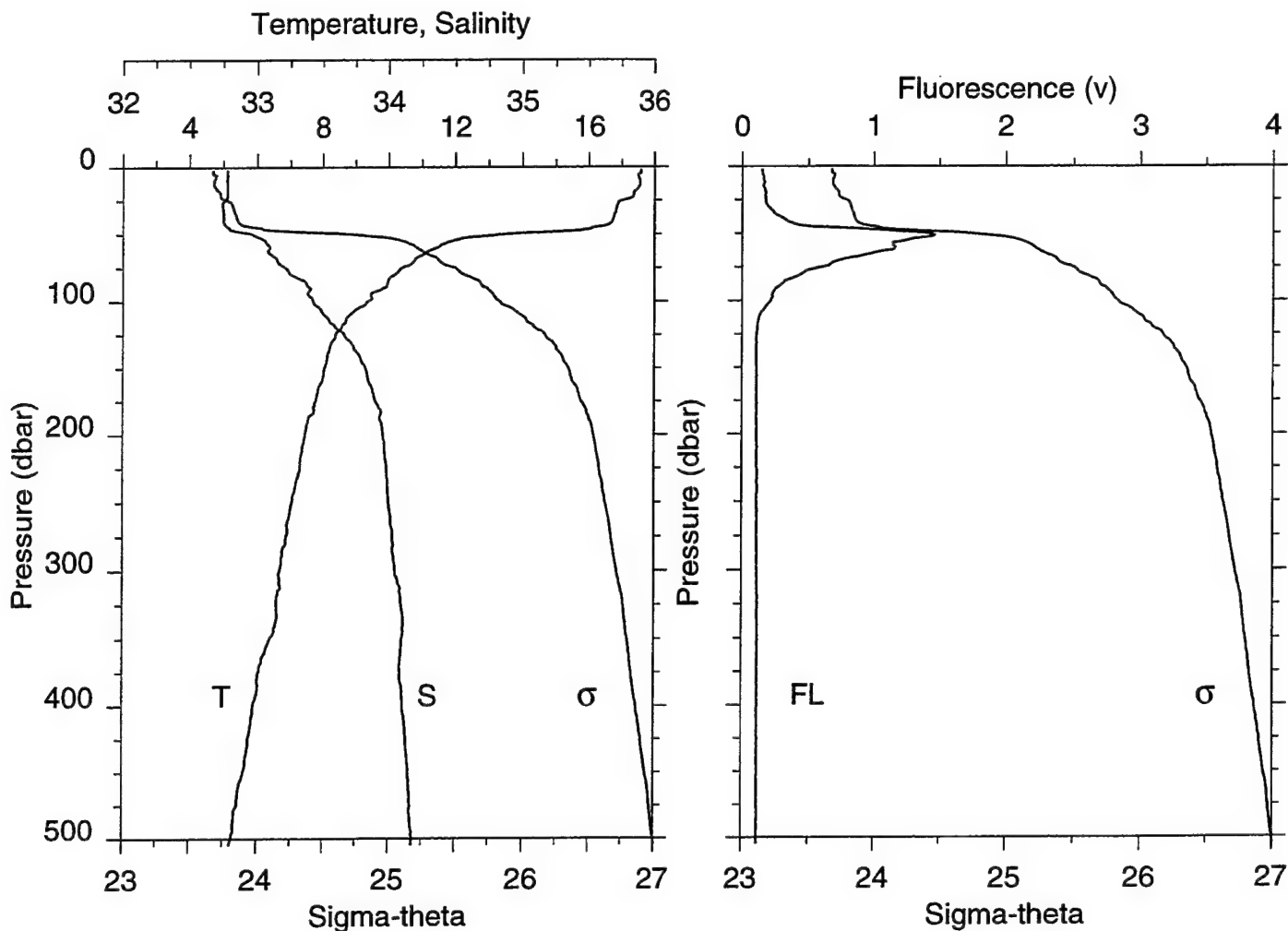
STA NO 23 LAT: 37 55.0 N LONG: 127 19.9 W
07 SEP 1993 1431 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.406	32.785	17.405	23.720	416.8	0.083	0.17
10	17.399	32.784	17.397	23.721	417.0	0.417	0.18
20	17.194	32.768	17.191	23.758	413.7	0.833	0.19
30	16.841	32.792	16.836	23.859	404.4	1.240	0.23
40	15.948	32.814	15.941	24.081	383.6	1.642	0.43
50	11.212	33.063	11.206	25.231	273.9	1.941	1.08
60	10.344	33.220	10.337	25.505	248.0	2.202	0.55
70	9.899	33.338	9.891	25.673	232.3	2.442	0.34
80	9.414	33.436	9.405	25.829	217.5	2.667	0.23
90	8.871	33.500	8.861	25.966	204.7	2.878	0.14
100	8.644	33.572	8.634	26.058	196.1	3.078	0.12
110	8.525	33.617	8.514	26.111	191.2	3.272	0.11
120	8.371	33.675	8.359	26.180	184.8	3.460	0.11
130	8.219	33.739	8.206	26.253	178.0	3.641	0.11
140	8.119	33.793	8.105	26.311	172.7	3.816	0.11
150	8.008	33.817	7.993	26.346	169.5	3.987	0.11
175	7.805	33.904	7.788	26.444	160.5	4.398	0.11
200	7.476	33.952	7.457	26.529	152.8	4.791	0.11
225	7.240	33.984	7.219	26.589	147.5	5.166	0.11
250	6.979	34.008	6.956	26.644	142.6	5.530	0.11
275	6.739	34.036	6.714	26.699	137.6	5.880	0.12
300	6.650	34.070	6.623	26.737	134.3	6.220	0.12
350	6.284	34.095	6.253	26.805	128.3	6.877	0.12
400	5.891	34.113	5.857	26.870	122.6	7.504	0.12
450	5.637	34.147	5.599	26.928	117.5	8.103	0.12
500	5.252	34.174	5.212	26.996	111.2	8.674	0.12
505	5.253	34.185	5.213	27.004	110.5	8.730	0.12



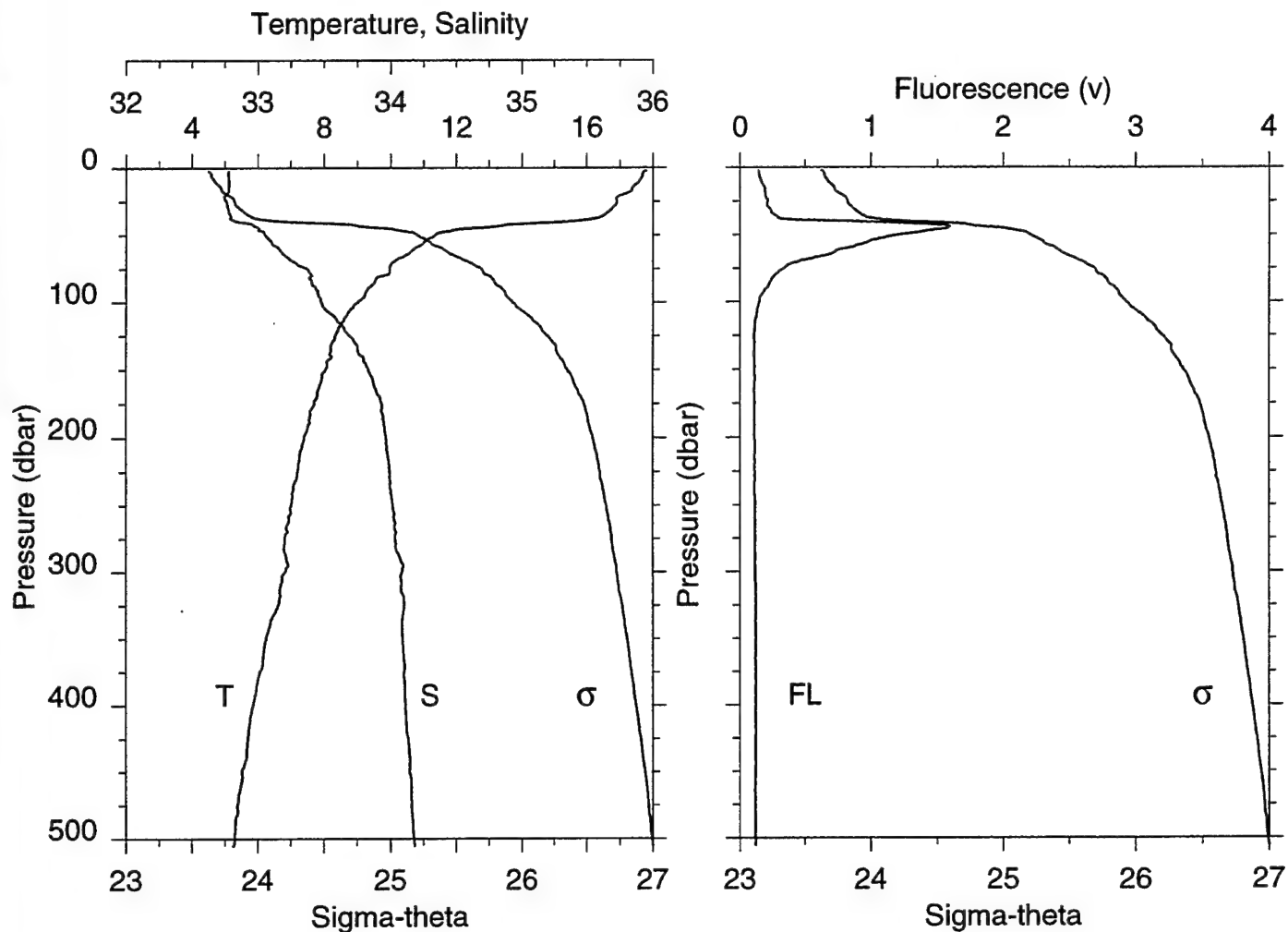
STA NO 24 LAT: 37 55.0 N LONG: 127 19.8 W
07 SEP 1993 1651 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	17.513	32.786	17.512	23.696	419.2	0.126	0.12
10	17.470	32.786	17.469	23.706	418.4	0.419	0.14
20	16.871	32.748	16.868	23.818	408.0	0.834	0.18
30	16.768	32.757	16.763	23.850	405.4	1.241	0.24
40	15.197	32.876	15.191	24.294	363.2	1.638	1.04
50	10.980	33.108	10.974	25.308	266.6	1.930	0.98
60	10.397	33.212	10.390	25.490	249.4	2.190	0.59
70	9.985	33.334	9.977	25.655	233.9	2.432	0.33
80	9.539	33.411	9.530	25.790	221.3	2.660	0.24
90	8.986	33.485	8.977	25.936	207.6	2.875	0.16
100	8.621	33.583	8.610	26.070	195.0	3.075	0.12
110	8.409	33.663	8.398	26.164	186.1	3.266	0.11
120	8.199	33.735	8.187	26.253	177.8	3.448	0.11
130	8.138	33.785	8.125	26.302	173.4	3.623	0.11
140	7.993	33.823	7.979	26.353	168.7	3.795	0.11
150	7.887	33.868	7.873	26.404	164.0	3.961	0.11
175	7.533	33.938	7.517	26.510	154.2	4.360	0.12
200	7.258	33.982	7.239	26.584	147.6	4.737	0.11
225	7.027	34.001	7.006	26.632	143.3	5.101	0.11
250	6.806	34.023	6.783	26.679	139.1	5.453	0.11
275	6.670	34.048	6.646	26.717	135.8	5.797	0.12
300	6.619	34.081	6.592	26.750	133.1	6.133	0.12
350	6.151	34.092	6.121	26.820	126.8	6.782	0.12
400	5.878	34.117	5.844	26.875	122.1	7.402	0.12
450	5.650	34.144	5.612	26.925	117.8	8.001	0.12
500	5.360	34.175	5.319	26.984	112.5	8.577	0.12
505	5.286	34.170	5.245	26.989	112.0	8.633	0.12



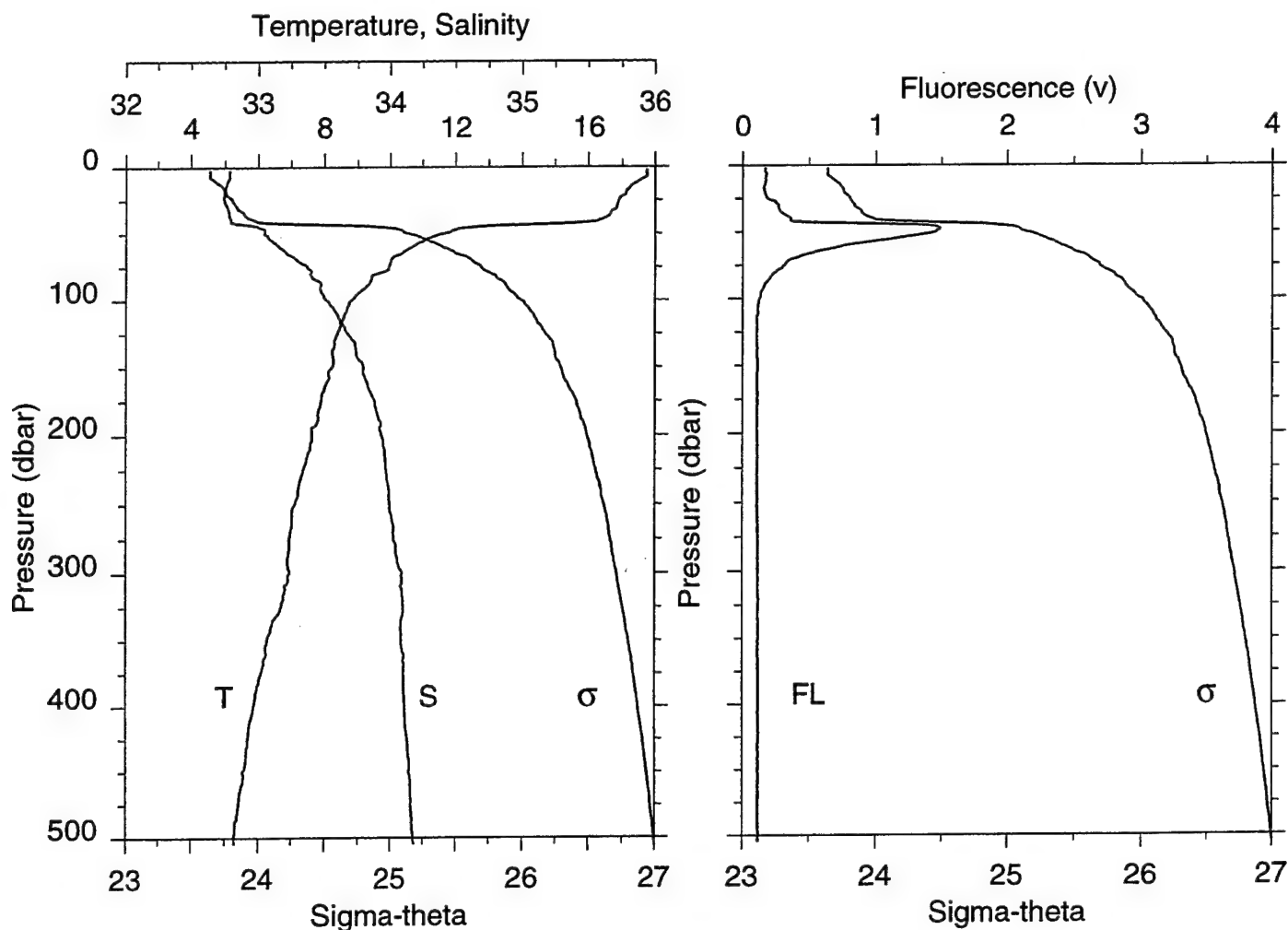
STANO 25 LAT: 37 55.1 N LONG: 127 19.9 W
07 SEP 1993 1935 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.581	32.780	17.581	23.674	421.2	0.084	0.15
10	17.545	32.779	17.543	23.683	420.6	0.421	0.16
20	17.366	32.781	17.363	23.727	416.7	0.840	0.18
30	16.850	32.746	16.845	23.822	408.0	1.252	0.19
40	16.721	32.752	16.714	23.857	405.0	1.659	0.33
50	13.387	32.970	13.380	24.746	320.3	2.040	1.42
60	11.430	33.092	11.422	25.214	275.8	2.330	1.16
70	10.742	33.150	10.734	25.383	259.9	2.597	0.73
80	10.163	33.257	10.154	25.566	242.7	2.848	0.44
90	9.813	33.404	9.803	25.740	226.3	3.081	0.26
100	9.338	33.425	9.327	25.833	217.5	3.304	0.22
110	8.802	33.512	8.791	25.986	203.1	3.514	0.14
120	8.561	33.605	8.549	26.096	192.8	3.712	0.11
130	8.281	33.711	8.268	26.222	181.0	3.898	0.11
140	8.143	33.776	8.129	26.294	174.3	4.076	0.11
150	8.045	33.824	8.030	26.346	169.5	4.248	0.11
175	7.775	33.900	7.758	26.445	160.5	4.661	0.11
200	7.447	33.957	7.428	26.538	152.0	5.049	0.11
225	7.294	33.984	7.273	26.581	148.3	5.424	0.11
250	7.048	33.998	7.024	26.626	144.3	5.789	0.11
275	6.873	34.028	6.847	26.674	140.0	6.144	0.11
300	6.684	34.050	6.657	26.717	136.2	6.489	0.12
350	6.388	34.101	6.357	26.797	129.2	7.150	0.12
400	5.903	34.110	5.868	26.866	123.0	7.781	0.12
450	5.611	34.151	5.573	26.935	116.8	8.381	0.12
500	5.261	34.179	5.220	26.999	111.0	8.949	0.12
505	5.216	34.178	5.176	27.003	110.6	9.005	0.12



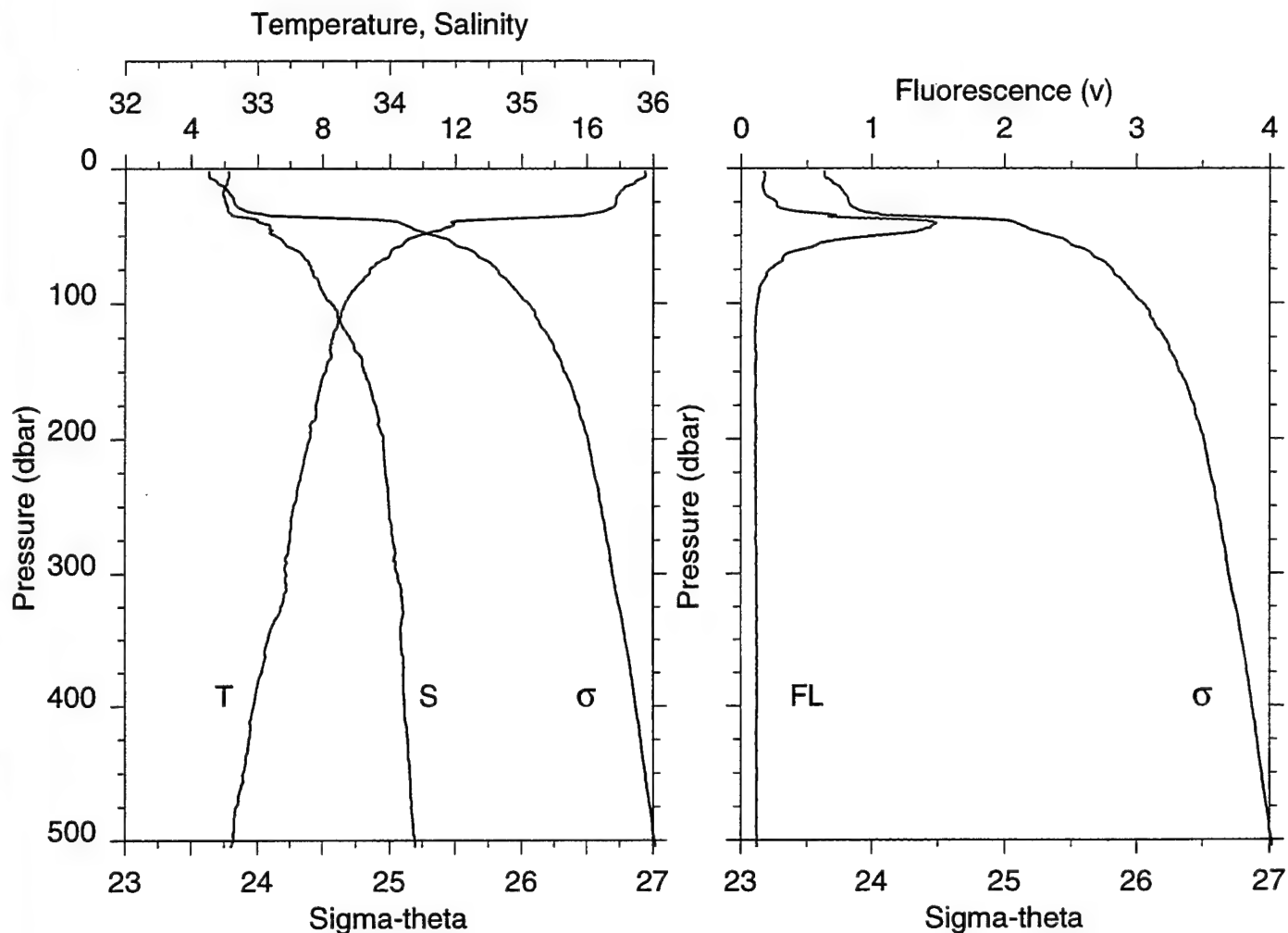
STANO 26 LAT: 37 55.1 N LONG: 127 19.9 W
07 SEP 1993 2215 GMT DEPTH 4575

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.802	32.780	17.801	23.622	426.2	0.085	0.14
10	17.580	32.780	17.578	23.675	421.4	0.424	0.16
20	17.066	32.753	17.063	23.776	412.0	0.841	0.19
30	16.772	32.774	16.767	23.861	404.2	1.249	0.22
40	15.311	32.858	15.304	24.255	366.9	1.644	0.87
50	11.339	33.060	11.333	25.206	276.3	1.948	1.21
60	10.714	33.162	10.707	25.396	258.4	2.216	0.81
70	10.062	33.283	10.054	25.603	238.9	2.466	0.45
80	9.773	33.411	9.764	25.751	225.0	2.697	0.27
90	9.307	33.441	9.297	25.850	215.7	2.918	0.20
100	9.021	33.479	9.010	25.926	208.7	3.130	0.15
110	8.668	33.571	8.656	26.053	196.7	3.333	0.13
120	8.420	33.652	8.408	26.154	187.2	3.525	0.11
130	8.239	33.732	8.226	26.244	178.8	3.708	0.11
140	8.227	33.791	8.213	26.293	174.4	3.885	0.11
150	8.039	33.834	8.024	26.355	168.6	4.056	0.11
175	7.715	33.932	7.698	26.479	157.2	4.463	0.11
200	7.407	33.962	7.388	26.547	151.1	4.848	0.11
225	7.203	33.992	7.182	26.600	146.4	5.219	0.11
250	7.014	34.017	6.991	26.646	142.4	5.581	0.12
275	6.833	34.035	6.808	26.685	139.0	5.932	0.12
300	6.832	34.085	6.804	26.725	135.5	6.275	0.12
350	6.258	34.091	6.227	26.806	128.2	6.935	0.12
400	5.861	34.113	5.827	26.874	122.2	7.561	0.12
450	5.521	34.145	5.483	26.941	116.1	8.156	0.12
500	5.302	34.178	5.261	26.994	111.5	8.725	0.12
506	5.262	34.183	5.221	27.002	110.8	8.791	0.12



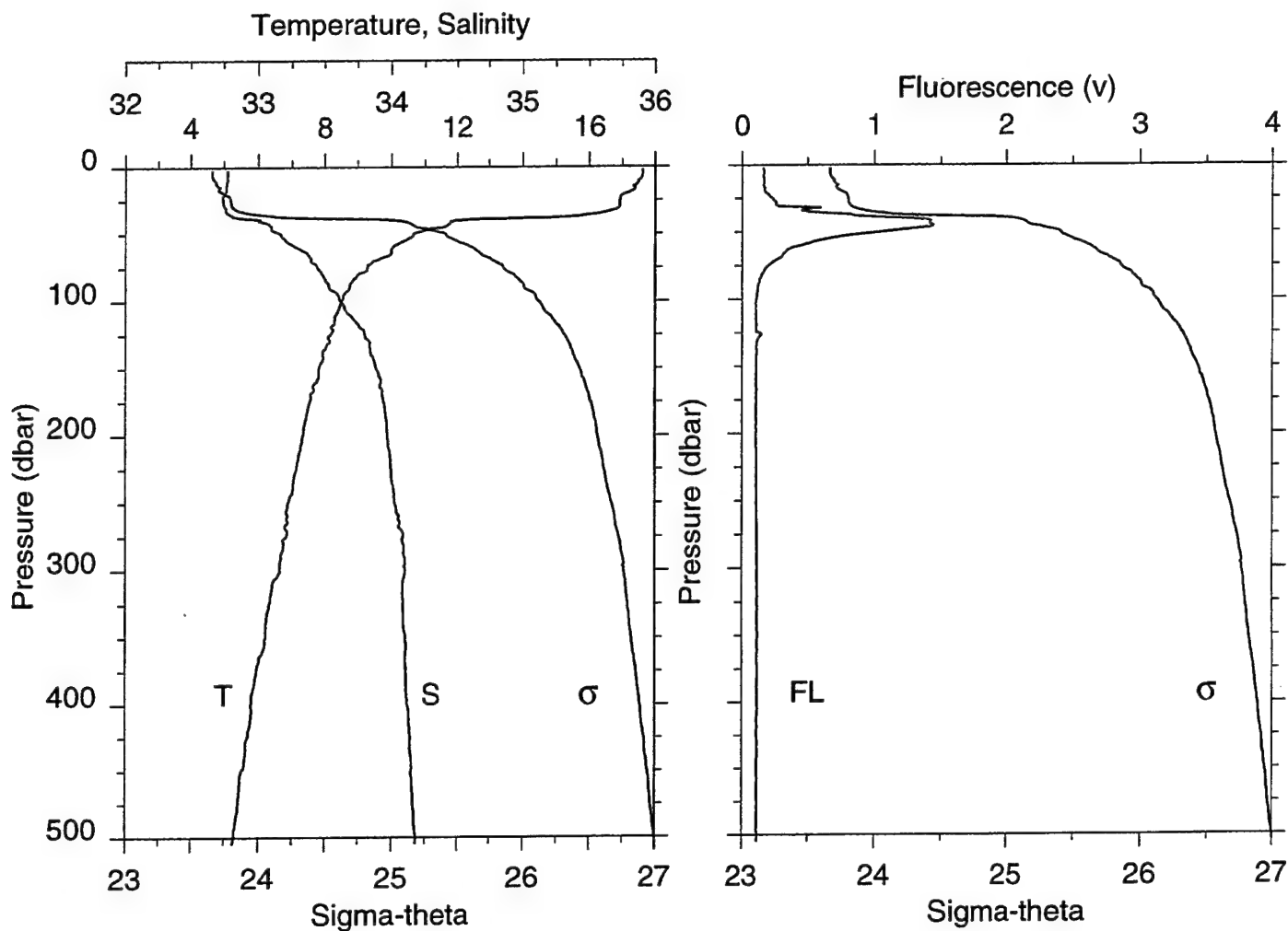
STA NO 27 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 17 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.737	32.788	17.737	23.644	424.1	0.085	0.17
10	17.564	32.773	17.562	23.673	421.5	0.424	0.17
20	17.111	32.747	17.108	23.761	413.5	0.841	0.17
30	16.842	32.769	16.837	23.841	406.1	1.250	0.27
40	16.326	32.794	16.320	23.979	393.3	1.651	0.36
50	11.607	33.048	11.600	25.148	281.9	1.973	1.46
60	10.675	33.164	10.668	25.405	257.6	2.241	0.77
70	10.010	33.300	10.002	25.625	236.8	2.488	0.37
80	9.552	33.394	9.543	25.774	222.8	2.718	0.25
90	9.233	33.468	9.223	25.884	212.5	2.935	0.17
100	8.787	33.519	8.777	25.993	202.2	3.143	0.13
110	8.598	33.595	8.587	26.083	193.9	3.340	0.12
120	8.459	33.647	8.447	26.145	188.2	3.532	0.11
130	8.291	33.713	8.278	26.222	180.9	3.717	0.11
140	8.235	33.736	8.221	26.249	178.6	3.896	0.11
150	8.224	33.791	8.209	26.293	174.6	4.073	0.12
175	7.895	33.877	7.878	26.410	163.8	4.497	0.11
200	7.632	33.931	7.613	26.491	156.5	4.897	0.11
225	7.371	33.967	7.350	26.557	150.6	5.281	0.11
250	7.118	33.997	7.095	26.616	145.3	5.651	0.11
275	6.945	34.029	6.920	26.665	140.9	6.008	0.12
300	6.961	34.091	6.934	26.712	136.9	6.355	0.12
350	6.285	34.087	6.254	26.799	128.9	7.020	0.12
400	5.875	34.113	5.841	26.872	122.4	7.647	0.12
450	5.545	34.145	5.508	26.938	116.5	8.243	0.12
500	5.292	34.177	5.251	26.994	111.5	8.813	0.12
505	5.289	34.184	5.248	27.000	111.0	8.868	0.12



STA NO 28 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 217 GMT DEPTH 4575

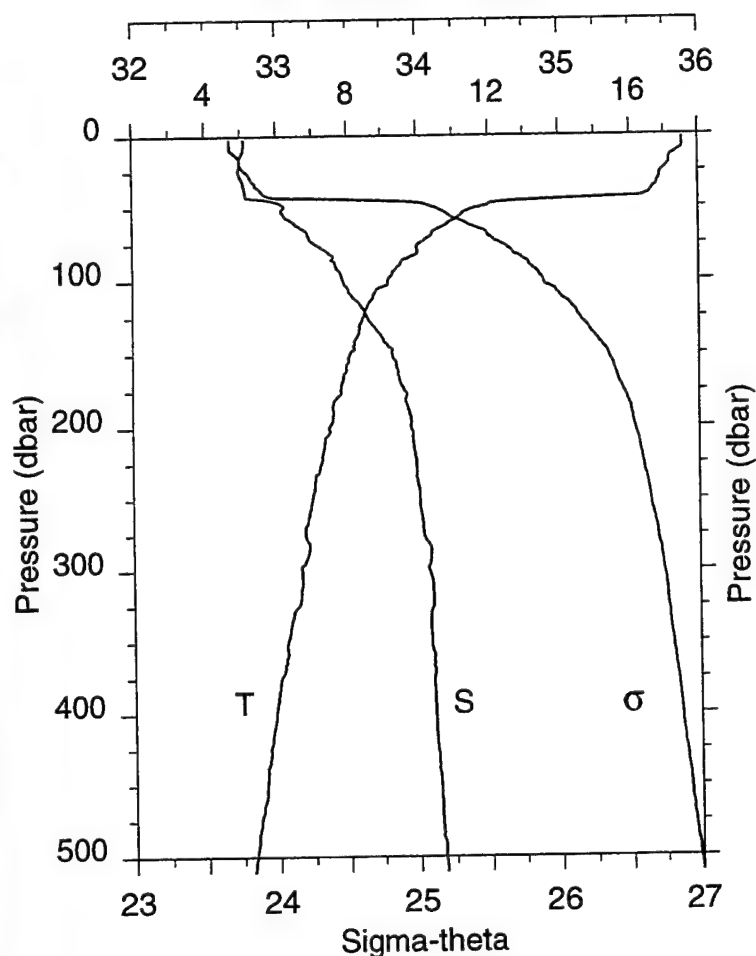
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.749	32.780	17.749	23.634	425.0	0.085	0.18
10	17.459	32.770	17.457	23.696	419.3	0.424	0.17
20	16.930	32.743	16.927	23.801	409.7	0.838	0.19
30	16.694	32.775	16.689	23.880	402.4	1.245	0.31
40	11.880	33.015	11.875	25.071	289.0	1.605	1.47
50	10.830	33.137	10.824	25.356	262.0	1.882	1.04
60	10.069	33.283	10.063	25.601	238.9	2.133	0.47
70	9.608	33.396	9.600	25.766	223.3	2.364	0.28
80	9.266	33.436	9.257	25.853	215.2	2.583	0.19
90	8.923	33.494	8.913	25.953	205.9	2.793	0.14
100	8.666	33.566	8.655	26.050	196.8	2.995	0.12
110	8.540	33.614	8.529	26.106	191.6	3.188	0.11
120	8.358	33.672	8.346	26.180	184.8	3.377	0.11
130	8.245	33.733	8.232	26.245	178.8	3.559	0.11
140	8.252	33.792	8.238	26.290	174.7	3.736	0.11
150	8.099	33.809	8.084	26.326	171.4	3.909	0.11
175	7.809	33.897	7.792	26.438	161.1	4.323	0.11
200	7.614	33.951	7.594	26.510	154.7	4.719	0.11
225	7.361	33.967	7.340	26.558	150.4	5.100	0.11
250	7.117	33.994	7.093	26.614	145.5	5.469	0.11
275	7.003	34.025	6.978	26.654	141.9	5.829	0.11
300	6.887	34.058	6.860	26.696	138.3	6.178	0.12
350	6.327	34.085	6.296	26.792	129.6	6.847	0.12
400	5.880	34.112	5.846	26.870	122.5	7.476	0.12
450	5.563	34.153	5.525	26.942	116.1	8.073	0.12
500	5.267	34.195	5.226	27.011	109.9	8.638	0.12
505	5.202	34.193	5.161	27.017	109.3	8.693	0.12



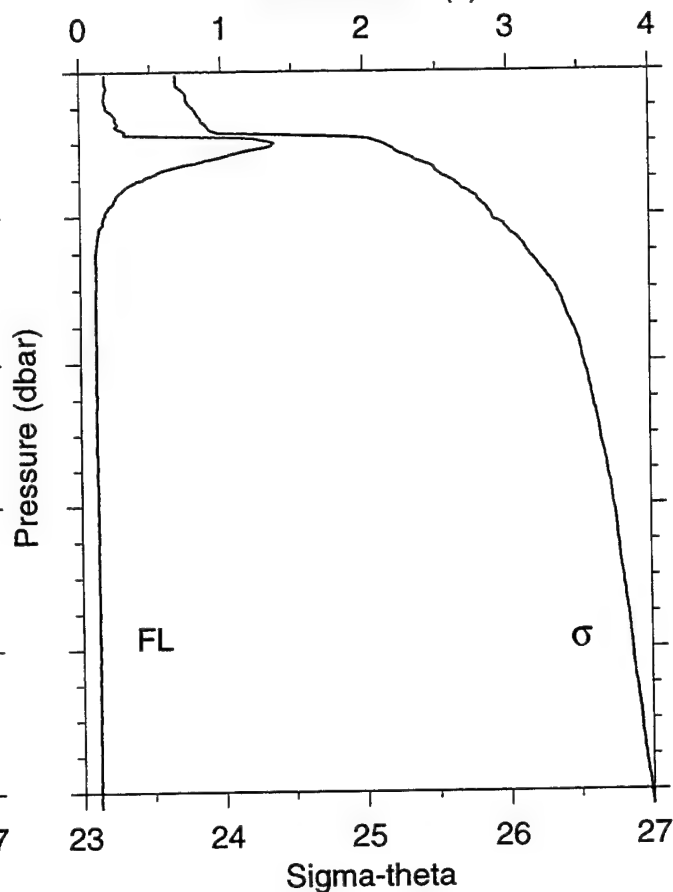
STA NO 29 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 515 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.614	32.776	17.614	23.664	422.2	0.084	0.17
10	17.539	32.776	17.537	23.682	420.8	0.422	0.17
20	17.157	32.756	17.154	23.757	413.8	0.840	0.18
30	16.918	32.759	16.913	23.816	408.5	1.250	0.26
40	11.924	33.003	11.919	25.054	290.6	1.628	1.27
50	10.647	33.166	10.641	25.411	256.8	1.902	1.05
60	10.026	33.295	10.019	25.618	237.3	2.151	0.44
70	9.448	33.392	9.441	25.789	221.2	2.381	0.27
80	8.987	33.484	8.978	25.935	207.4	2.595	0.16
90	8.740	33.534	8.731	26.012	200.2	2.798	0.12
100	8.505	33.622	8.494	26.118	190.3	2.992	0.11
110	8.333	33.691	8.322	26.198	182.9	3.179	0.11
120	8.213	33.771	8.201	26.279	175.3	3.358	0.11
130	8.160	33.838	8.147	26.340	169.8	3.531	0.12
140	7.941	33.849	7.927	26.381	166.0	3.698	0.12
150	7.823	33.886	7.808	26.428	161.7	3.862	0.11
175	7.538	33.941	7.522	26.512	154.0	4.256	0.11
200	7.336	33.970	7.317	26.564	149.5	4.635	0.11
225	7.142	33.998	7.121	26.613	145.1	5.003	0.11
250	6.891	34.026	6.868	26.669	140.1	5.360	0.12
275	6.831	34.086	6.805	26.725	135.1	5.704	0.12
300	6.648	34.102	6.621	26.763	131.8	6.036	0.12
350	6.224	34.104	6.194	26.820	126.8	6.682	0.12
400	5.797	34.120	5.763	26.887	120.9	7.301	0.12
450	5.514	34.147	5.477	26.944	115.9	7.893	0.12
500	5.300	34.183	5.260	26.998	111.2	8.462	0.12
505	5.260	34.181	5.219	27.001	110.9	8.517	0.12

Temperature, Salinity

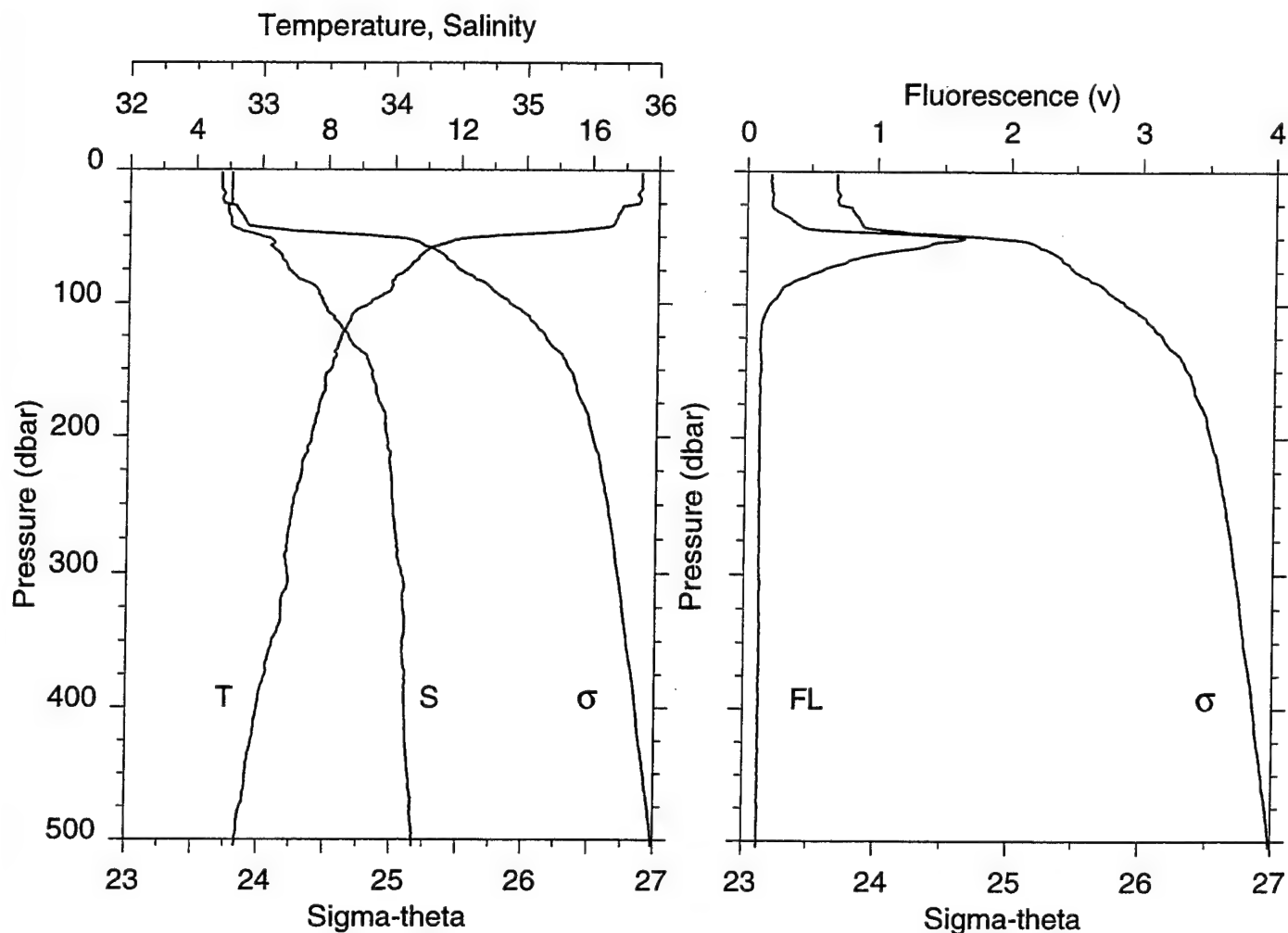


Fluorescence (v)



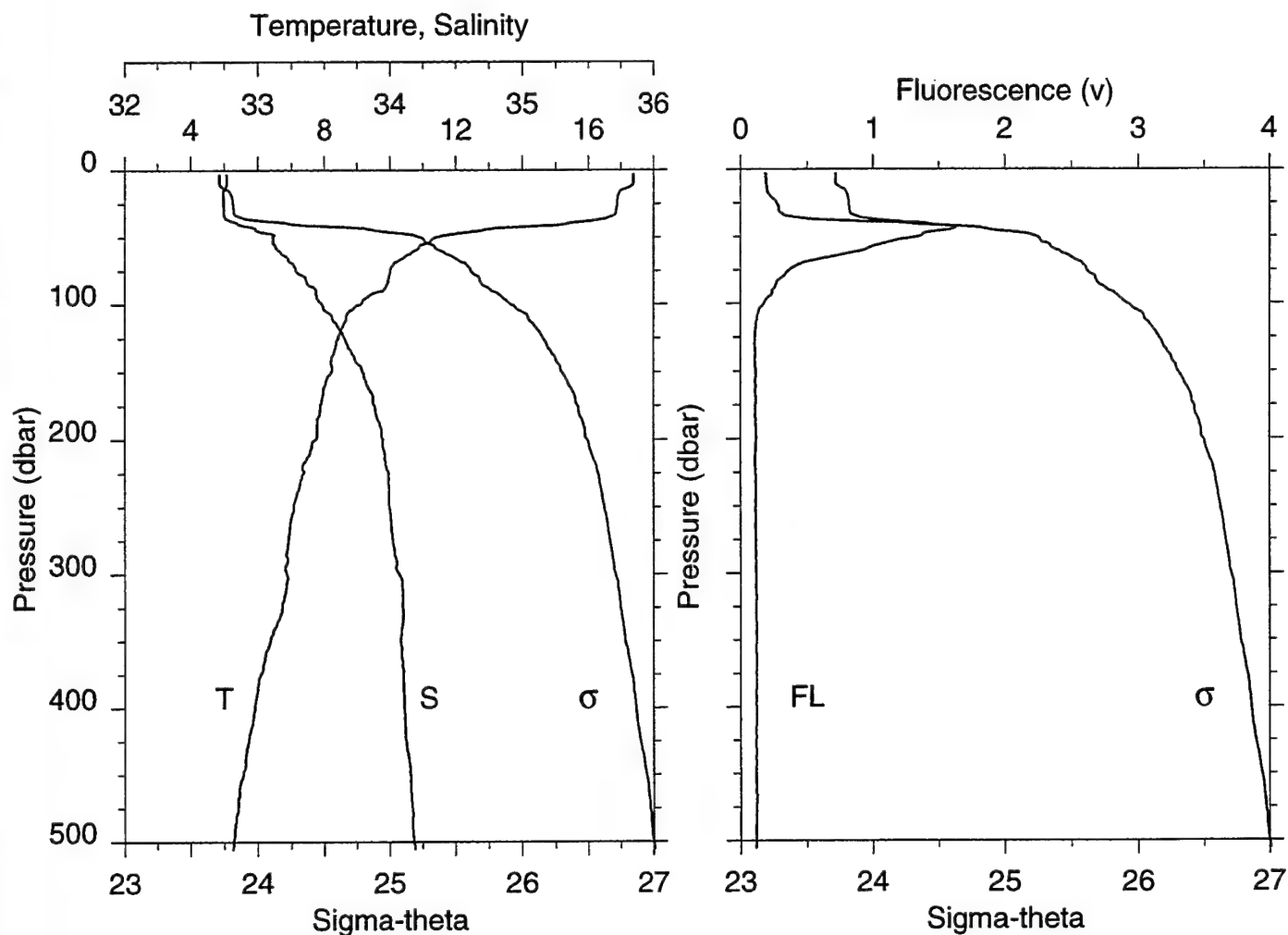
STA NO 30 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 721 GMT DEPTH 4575

P (DB)	T (C)	S	POT T (C)	SIGMA THETA	SVA (CL/T)	DYN HT (J/KG)	FL (V)
2	17.558	32.778	17.558	23.678	420.8	0.084	0.18
10	17.536	32.776	17.534	23.683	420.6	0.421	0.19
20	17.173	32.749	17.170	23.749	414.7	0.837	0.17
30	16.879	32.761	16.874	23.827	407.5	1.248	0.24
40	16.610	32.786	16.604	23.909	400.0	1.652	0.28
50	11.753	33.055	11.747	25.126	283.9	1.990	1.38
60	10.919	33.121	10.912	25.329	264.8	2.265	0.99
70	10.375	33.226	10.367	25.505	248.3	2.521	0.55
80	10.024	33.354	10.015	25.665	233.3	2.761	0.33
90	9.519	33.415	9.509	25.796	220.9	2.987	0.24
100	9.190	33.467	9.179	25.889	212.2	3.203	0.17
110	8.761	33.527	8.750	26.004	201.4	3.410	0.13
120	8.525	33.620	8.513	26.113	191.1	3.606	0.12
130	8.357	33.679	8.344	26.186	184.4	3.795	0.11
140	8.229	33.763	8.215	26.271	176.5	3.975	0.11
150	8.067	33.827	8.052	26.345	169.6	4.148	0.11
175	7.796	33.912	7.779	26.452	159.8	4.560	0.11
200	7.464	33.957	7.445	26.535	152.3	4.949	0.11
225	7.232	33.992	7.211	26.596	146.8	5.322	0.11
250	6.981	34.015	6.958	26.649	142.0	5.683	0.11
275	6.779	34.043	6.754	26.699	137.6	6.032	0.12
300	6.668	34.077	6.641	26.740	134.0	6.371	0.12
350	6.258	34.090	6.227	26.805	128.3	7.027	0.12
400	5.906	34.108	5.872	26.864	123.1	7.655	0.12
450	5.638	34.142	5.601	26.924	117.9	8.258	0.12
500	5.337	34.172	5.296	26.984	112.4	8.834	0.12
511	5.272	34.180	5.230	26.999	111.2	8.957	0.12



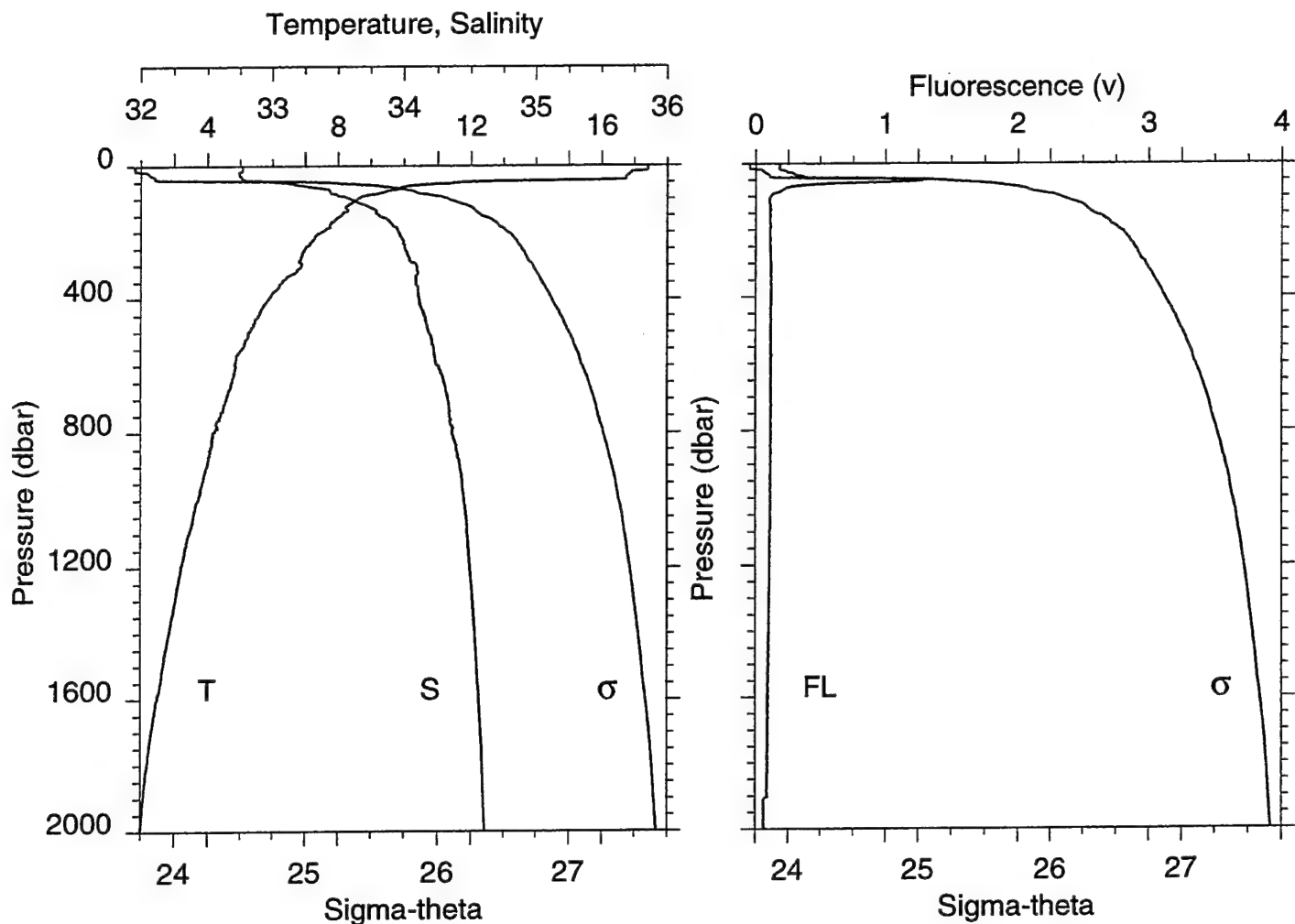
STANNO 31 LAT: 37 55.0 N LONG: 127 19.9 W
08 SEP 1993 1009 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.475	32.770	17.474	23.693	419.4	0.084	0.19
10	17.472	32.770	17.471	23.693	419.6	0.420	0.19
20	17.417	32.767	17.414	23.705	418.9	0.839	0.19
30	16.849	32.743	16.844	23.820	408.2	1.254	0.24
40	16.646	32.767	16.640	23.886	402.2	1.659	0.40
50	12.782	33.002	12.775	24.890	306.5	2.026	1.65
60	10.995	33.111	10.988	25.307	266.9	2.306	1.10
70	10.544	33.192	10.536	25.449	253.6	2.566	0.70
80	10.028	33.271	10.019	25.600	239.4	2.814	0.43
90	9.896	33.429	9.886	25.745	225.8	3.045	0.26
100	9.277	33.470	9.266	25.878	213.2	3.264	0.18
110	8.698	33.550	8.686	26.032	198.7	3.470	0.13
120	8.524	33.615	8.512	26.109	191.5	3.665	0.11
130	8.349	33.681	8.336	26.188	184.2	3.853	0.11
140	8.268	33.794	8.254	26.289	174.8	4.032	0.12
150	8.124	33.833	8.109	26.341	170.0	4.204	0.12
175	7.808	33.898	7.790	26.439	161.1	4.618	0.11
200	7.578	33.954	7.559	26.517	154.0	5.010	0.11
225	7.304	33.986	7.282	26.581	148.2	5.387	0.11
250	7.045	34.005	7.021	26.632	143.7	5.752	0.12
275	6.880	34.031	6.855	26.675	139.9	6.106	0.12
300	6.877	34.074	6.849	26.710	137.0	6.452	0.12
350	6.429	34.085	6.398	26.779	130.9	7.121	0.12
400	5.980	34.106	5.946	26.853	124.2	7.757	0.12
450	5.650	34.138	5.612	26.920	118.3	8.364	0.12
500	5.350	34.172	5.309	26.983	112.6	8.941	0.12
505	5.332	34.173	5.291	26.986	112.3	8.997	0.12



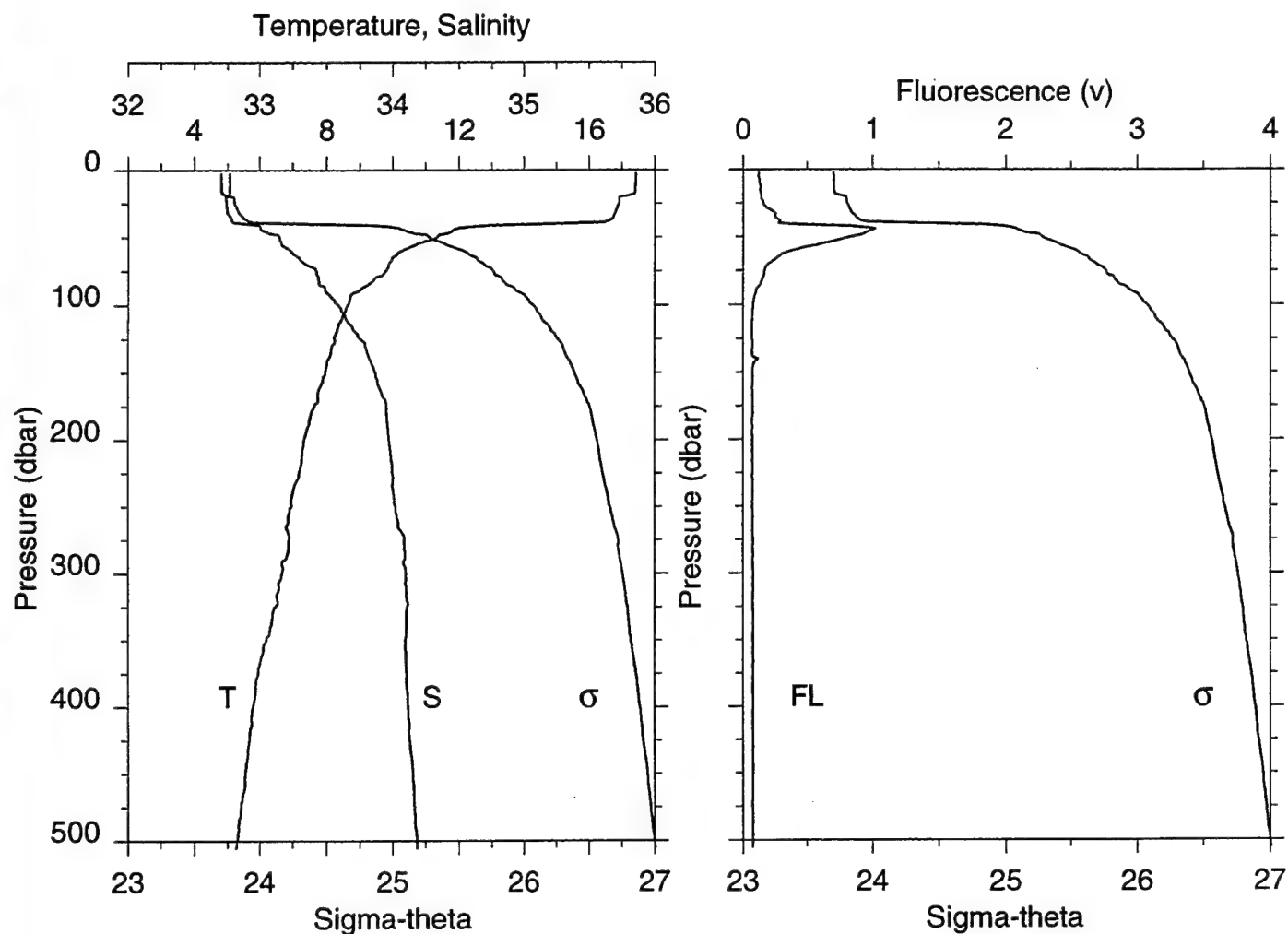
STANO 32 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 1246 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	17.379	32.768	17.378	23.714	417.4	0.125	0.18
10	17.378	32.768	17.376	23.714	417.7	0.418	0.19
20	16.900	32.743	16.897	23.808	409.0	0.830	0.22
30	16.853	32.747	16.848	23.822	408.0	1.239	0.29
40	15.318	32.854	15.312	24.251	367.3	1.635	1.38
50	11.375	33.112	11.369	25.240	273.2	1.943	1.35
60	10.741	33.162	10.734	25.392	258.9	2.210	0.94
70	10.113	33.265	10.105	25.580	241.1	2.460	0.46
80	9.967	33.356	9.958	25.676	232.2	2.697	0.32
90	9.771	33.436	9.761	25.771	223.3	2.926	0.24
100	9.104	33.481	9.093	25.914	209.8	3.141	0.18
110	8.675	33.561	8.664	26.044	197.6	3.344	0.12
120	8.493	33.630	8.481	26.126	190.0	3.538	0.11
130	8.363	33.679	8.350	26.185	184.5	3.725	0.11
140	8.219	33.733	8.205	26.249	178.6	3.907	0.11
150	8.213	33.794	8.198	26.298	174.1	4.083	0.11
175	7.876	33.886	7.858	26.420	162.9	4.502	0.11
200	7.728	33.948	7.709	26.490	156.6	4.902	0.12
225	7.372	33.992	7.350	26.576	148.7	5.284	0.11
250	7.068	33.997	7.044	26.623	144.6	5.650	0.11
275	6.910	34.024	6.884	26.666	140.8	6.006	0.11
300	6.869	34.073	6.842	26.710	137.0	6.354	0.12
350	6.373	34.083	6.342	26.784	130.4	7.021	0.12
400	5.912	34.110	5.878	26.865	123.0	7.650	0.12
450	5.570	34.157	5.533	26.944	115.9	8.249	0.12
500	5.265	34.180	5.224	26.999	110.9	8.815	0.12
506	5.255	34.191	5.214	27.009	110.1	8.881	0.12



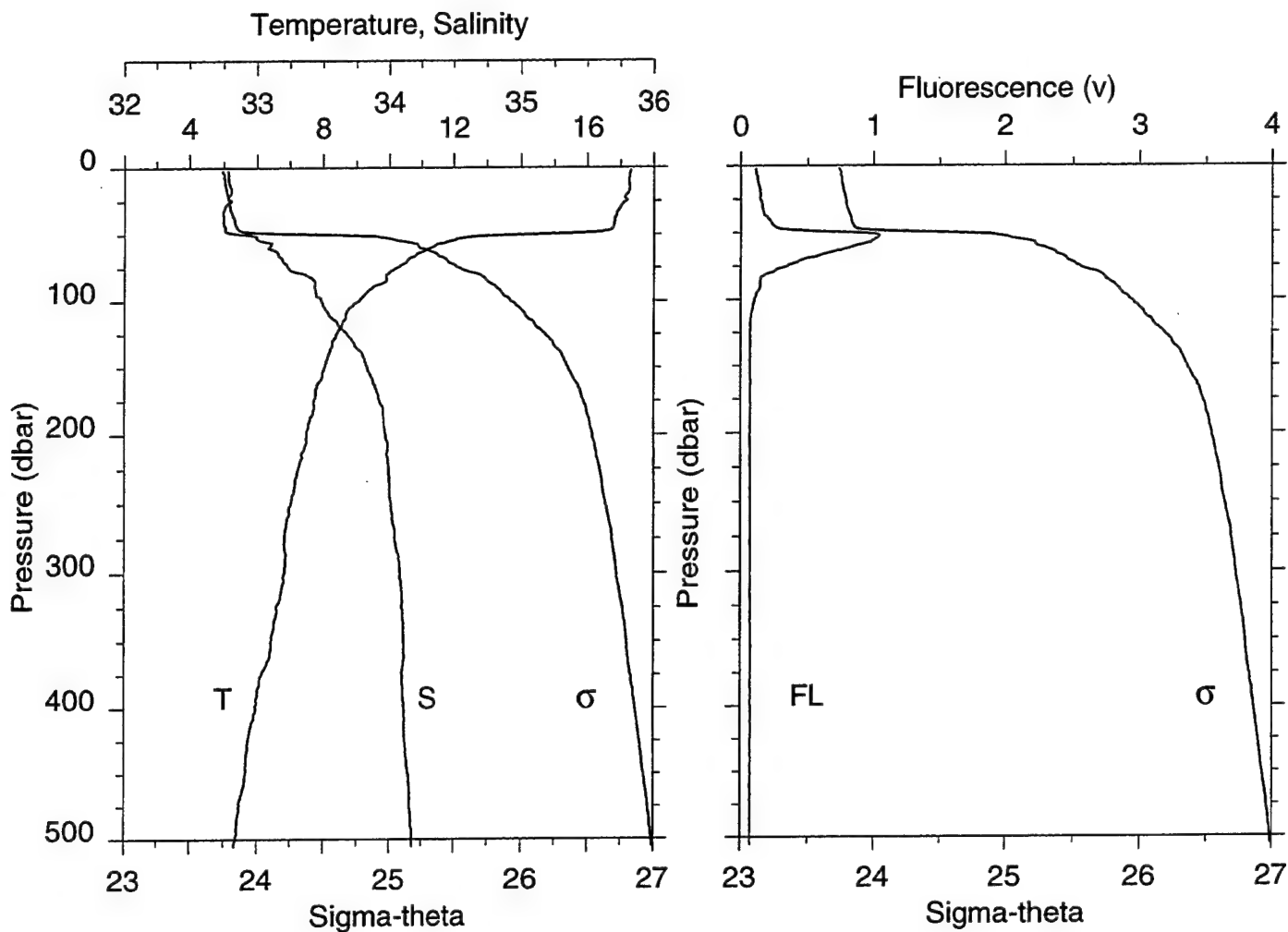
STA NO 33 LAT: 37 55.0 N LONG: 127 19.9 W
08 SEP 1993 1510 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.414	32.767	17.414	23.705	418.3	0.084	0.19	300	6.881	34.093	6.853	26.725	135.6	6.262	0.12
10	17.413	32.767	17.411	23.705	418.5	0.418	0.18	350	6.297	34.091	6.266	26.801	128.7	6.923	0.12
20	16.923	32.740	16.919	23.800	409.8	0.834	0.21	400	5.883	34.113	5.849	26.870	122.5	7.551	0.12
30	16.815	32.750	16.810	23.834	406.9	1.243	0.29	450	5.555	34.149	5.518	26.939	116.3	8.148	0.12
40	16.754	32.764	16.748	23.858	404.9	1.648	0.37	500	5.256	34.181	5.215	27.001	110.8	8.716	0.12
50	11.687	33.062	11.681	25.144	282.3	2.000	1.29	600	4.871	34.256	4.823	27.106	101.6	9.776	0.12
60	10.243	33.243	10.236	25.541	244.6	2.264	0.66	700	4.581	34.328	4.526	27.196	93.8	10.751	0.12
70	9.837	33.411	9.829	25.741	225.8	2.499	0.28	800	4.176	34.359	4.115	27.264	87.6	11.659	0.12
80	9.391	33.441	9.382	25.837	216.8	2.719	0.21	900	3.989	34.419	3.921	27.332	81.9	12.506	0.12
90	8.848	33.498	8.839	25.968	204.5	2.930	0.14	1000	3.722	34.449	3.649	27.383	77.3	13.300	0.12
100	8.604	33.592	8.594	26.079	194.0	3.128	0.12	1100	3.444	34.474	3.365	27.431	73.0	14.049	0.11
110	8.445	33.645	8.434	26.145	188.0	3.319	0.11	1200	3.218	34.495	3.133	27.470	69.6	14.761	0.11
120	8.302	33.714	8.290	26.221	180.9	3.503	0.11	1300	3.045	34.513	2.953	27.501	66.8	15.442	0.10
130	8.266	33.770	8.253	26.270	176.4	3.681	0.11	1400	2.854	34.532	2.756	27.533	63.8	16.096	0.10
140	8.169	33.789	8.155	26.300	173.7	3.856	0.12	1500	2.674	34.546	2.570	27.561	61.3	16.721	0.10
150	8.099	33.814	8.084	26.330	171.0	4.029	0.11	1600	2.500	34.562	2.389	27.589	58.6	17.322	0.10
175	7.779	33.911	7.762	26.454	159.7	4.439	0.11	1700	2.330	34.577	2.214	27.616	56.0	17.894	0.09
200	7.469	33.959	7.450	26.536	152.2	4.830	0.11	1800	2.200	34.588	2.077	27.636	54.1	18.444	0.10
225	7.224	33.995	7.203	26.600	146.5	5.203	0.11	1900	2.086	34.596	1.957	27.651	52.6	18.976	0.09
250	6.992	34.008	6.969	26.642	142.7	5.565	0.11	2000	1.993	34.607	1.856	27.668	51.1	19.495	0.06
275	6.878	34.033	6.853	26.678	139.7	5.917	0.12								



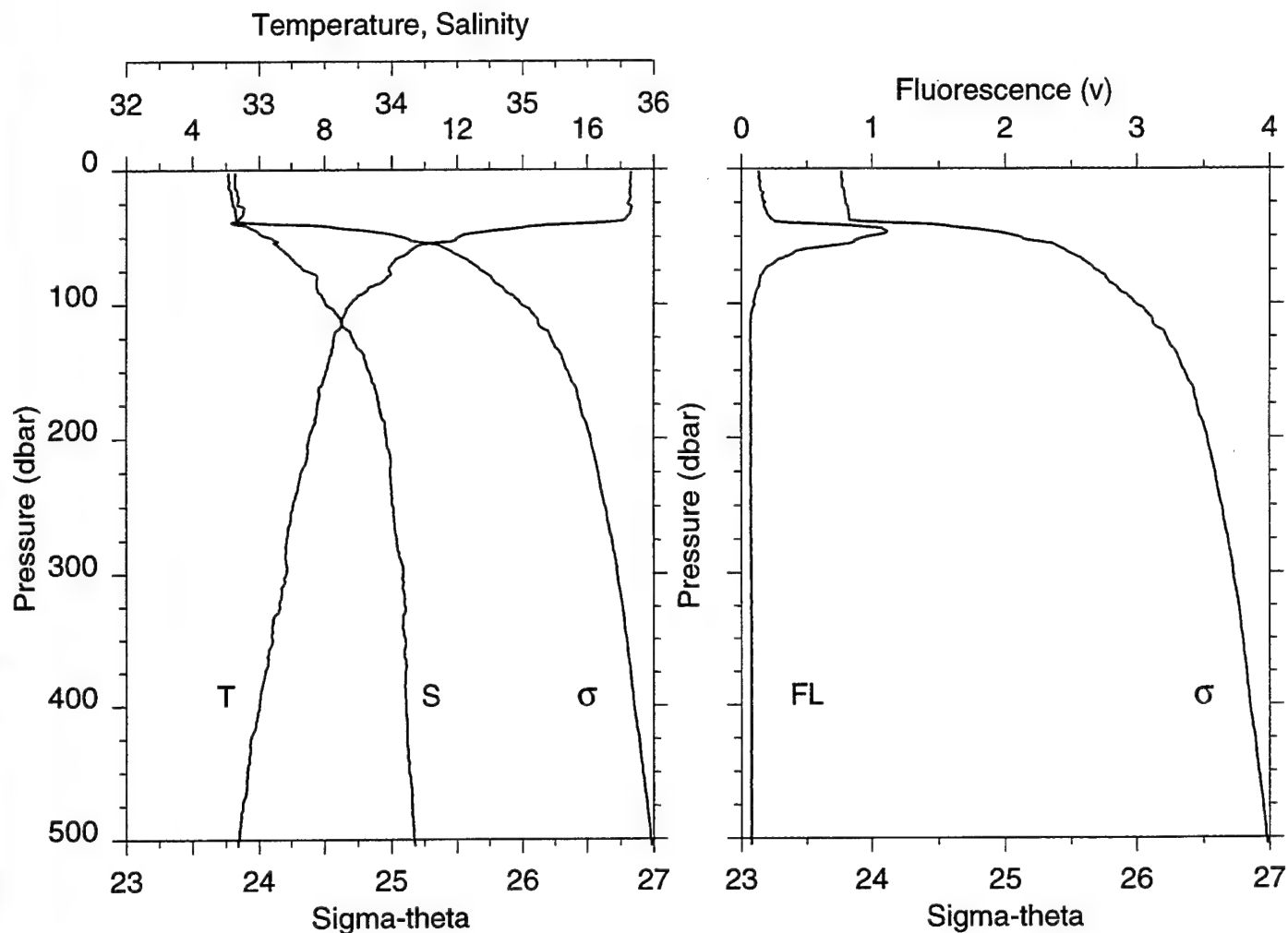
STANO 34 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 1835 GMT DEPTH 4500

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.425	32.767	17.424	23.702	418.6	0.084	0.12
10	17.417	32.767	17.415	23.705	418.6	0.419	0.13
20	16.936	32.739	16.933	23.796	410.1	0.836	0.14
30	16.820	32.747	16.816	23.829	407.3	1.245	0.22
40	14.902	32.909	14.896	24.383	354.7	1.646	0.28
50	11.330	33.153	11.323	25.280	269.3	1.935	0.84
60	10.261	33.239	10.254	25.535	245.2	2.193	0.39
70	9.870	33.353	9.862	25.690	230.6	2.431	0.20
80	9.442	33.438	9.433	25.826	217.8	2.655	0.15
90	8.874	33.496	8.865	25.962	205.0	2.867	0.10
100	8.612	33.590	8.601	26.076	194.3	3.066	0.08
110	8.445	33.642	8.434	26.142	188.2	3.257	0.07
120	8.284	33.719	8.272	26.228	180.2	3.441	0.07
130	8.154	33.787	8.141	26.301	173.5	3.618	0.07
140	8.043	33.823	8.029	26.345	169.4	3.790	0.12
150	7.959	33.866	7.944	26.391	165.2	3.957	0.07
175	7.634	33.950	7.617	26.505	154.7	4.357	0.07
200	7.342	33.970	7.323	26.563	149.6	4.737	0.07
225	7.191	33.997	7.170	26.605	145.9	5.107	0.07
250	6.970	34.024	6.946	26.658	141.2	5.465	0.07
275	6.898	34.090	6.873	26.720	135.7	5.811	0.08
300	6.694	34.100	6.667	26.755	132.6	6.147	0.08
350	6.212	34.098	6.182	26.817	127.1	6.795	0.08
400	5.790	34.118	5.756	26.886	120.9	7.414	0.08
450	5.557	34.155	5.519	26.944	115.9	8.007	0.08
500	5.298	34.184	5.257	26.999	111.0	8.575	0.08
506	5.258	34.186	5.216	27.005	110.5	8.641	0.08



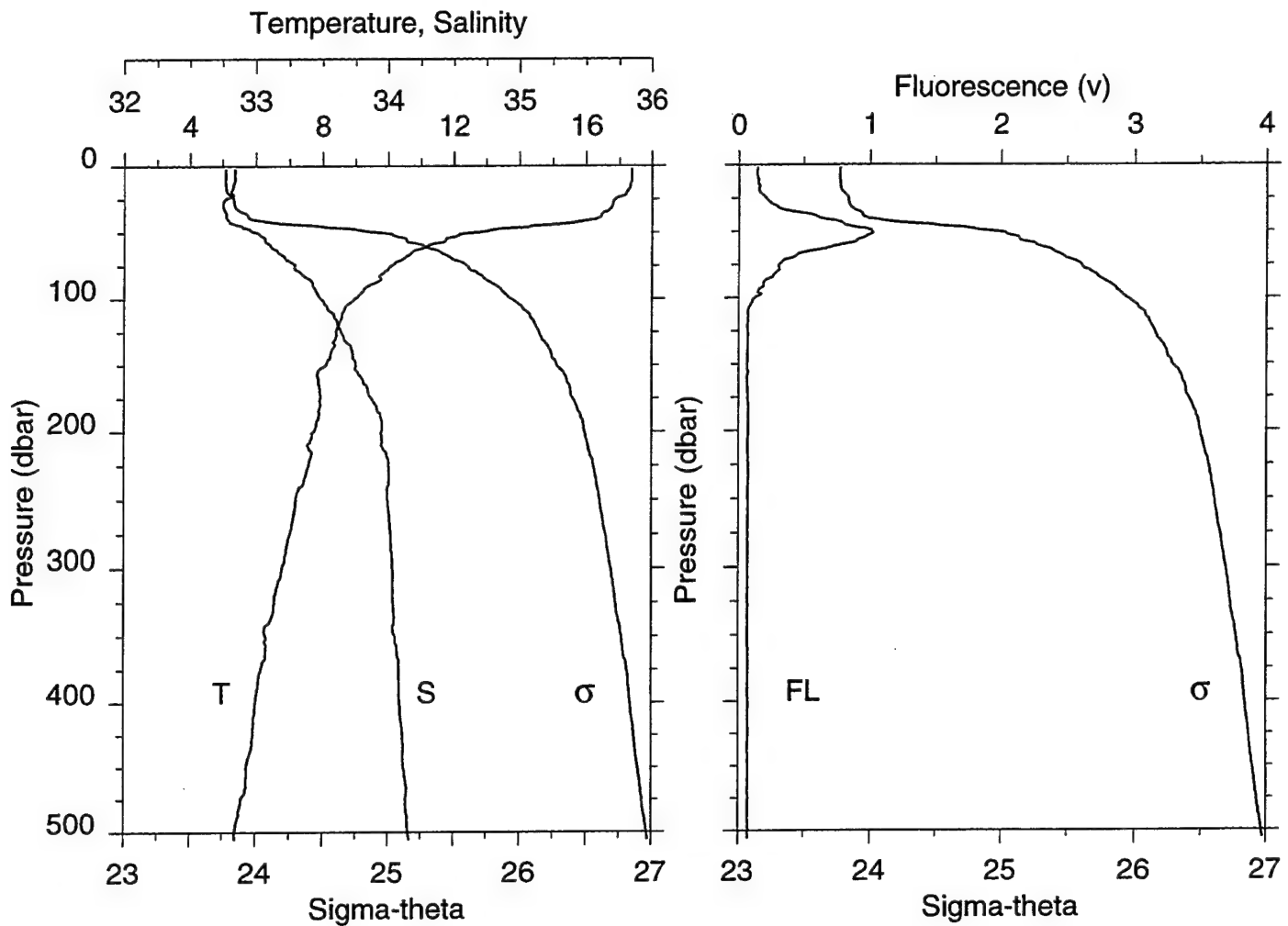
STA NO 35 LAT: 37 55.0 N LONG: 127 19.9 W
08 SEP 1993 2055 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.315	32.780	17.314	23.738	415.1	0.083	0.11
10	17.256	32.786	17.255	23.757	413.6	0.414	0.12
20	17.209	32.797	17.205	23.777	412.0	0.827	0.14
30	16.994	32.756	16.990	23.796	410.5	1.238	0.16
40	16.822	32.747	16.816	23.830	407.6	1.647	0.21
50	14.022	32.948	14.015	24.599	334.3	2.045	0.90
60	11.264	33.083	11.256	25.238	273.5	2.334	0.85
70	10.528	33.197	10.520	25.456	252.9	2.595	0.46
80	9.898	33.368	9.889	25.697	230.2	2.838	0.22
90	9.452	33.436	9.443	25.823	218.3	3.062	0.15
100	9.052	33.485	9.042	25.926	208.7	3.276	0.10
110	8.666	33.541	8.654	26.030	198.9	3.479	0.08
120	8.524	33.627	8.512	26.119	190.6	3.673	0.07
130	8.269	33.720	8.256	26.231	180.1	3.858	0.07
140	8.155	33.791	8.141	26.304	173.3	4.035	0.07
150	8.023	33.828	8.009	26.353	168.9	4.206	0.07
175	7.714	33.923	7.697	26.472	157.9	4.614	0.07
200	7.496	33.970	7.476	26.541	151.7	5.000	0.07
225	7.246	33.993	7.225	26.595	146.9	5.374	0.07
250	7.024	34.011	7.001	26.639	143.0	5.736	0.07
275	6.846	34.041	6.821	26.688	138.6	6.088	0.07
300	6.836	34.084	6.808	26.723	135.7	6.430	0.08
350	6.434	34.111	6.403	26.799	129.0	7.091	0.08
400	5.966	34.115	5.932	26.862	123.4	7.723	0.08
450	5.658	34.147	5.620	26.926	117.7	8.325	0.07
500	5.356	34.175	5.315	26.985	112.4	8.899	0.08
506	5.325	34.180	5.284	26.992	111.8	8.966	0.08



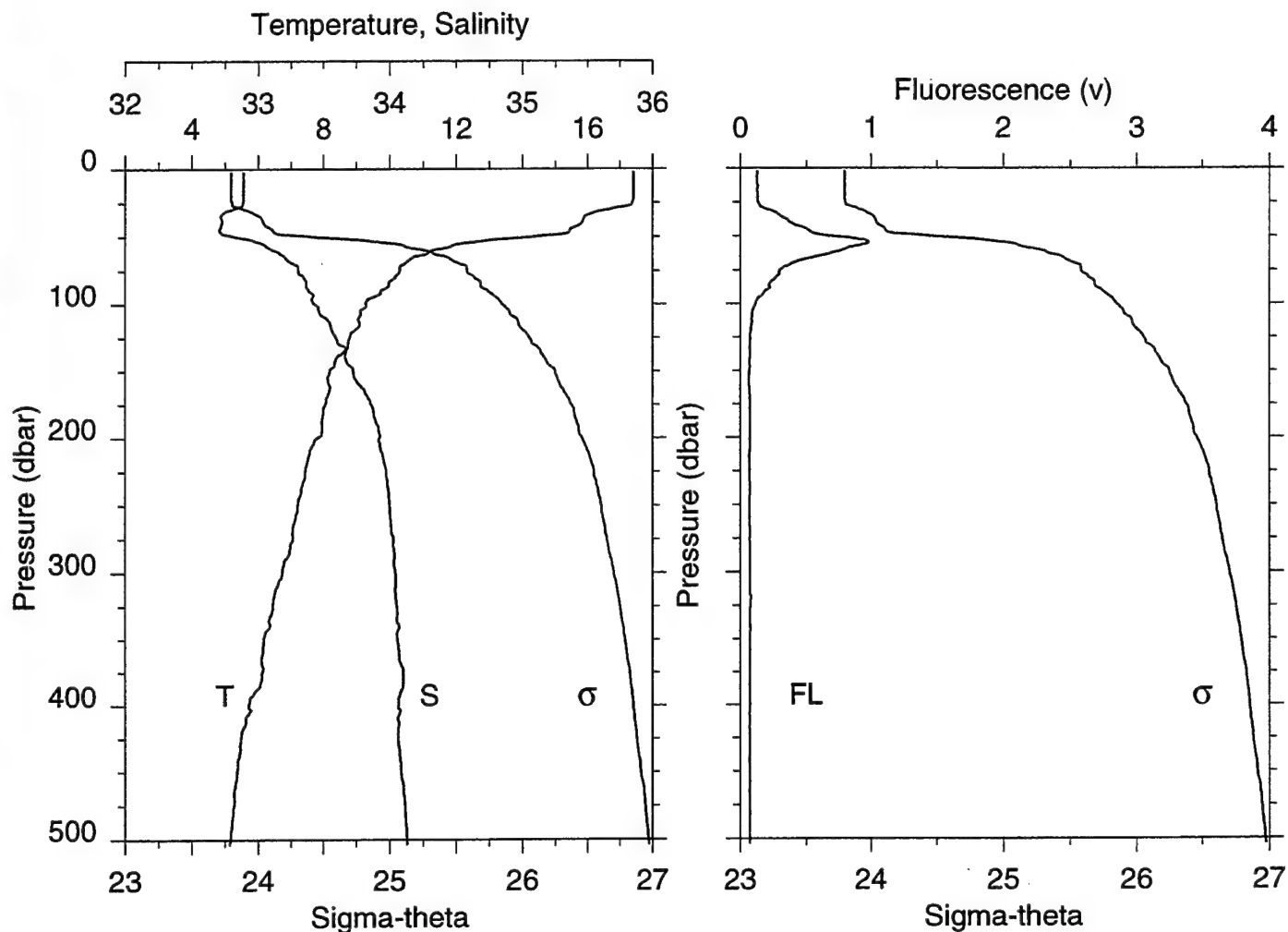
STANO 36 LAT: 37 55.0 N LONG: 127 20.0 W
08 SEP 1993 2300 GMT DEPTH 4575

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.314	32.818	17.314	23.767	412.3	0.082	0.13
10	17.295	32.818	17.293	23.772	412.1	0.412	0.14
20	17.298	32.845	17.294	23.792	410.5	0.824	0.15
30	17.309	32.884	17.304	23.820	408.2	1.233	0.18
40	15.838	32.815	15.832	24.106	381.2	1.639	0.36
50	12.045	33.088	12.039	25.097	286.7	1.958	0.98
60	10.546	33.195	10.539	25.452	253.1	2.226	0.45
70	9.996	33.299	9.988	25.627	236.7	2.471	0.24
80	9.850	33.444	9.841	25.764	223.8	2.701	0.14
90	9.236	33.451	9.226	25.870	213.9	2.920	0.12
100	8.757	33.512	8.747	25.993	202.2	3.127	0.10
110	8.529	33.616	8.517	26.110	191.3	3.323	0.07
120	8.342	33.691	8.330	26.197	183.2	3.512	0.07
130	8.262	33.734	8.249	26.243	179.0	3.693	0.07
140	8.153	33.792	8.139	26.305	173.3	3.869	0.07
150	8.038	33.831	8.023	26.353	168.9	4.040	0.07
175	7.792	33.905	7.775	26.447	160.3	4.450	0.07
200	7.550	33.962	7.531	26.527	153.1	4.842	0.08
225	7.291	33.990	7.269	26.586	147.7	5.219	0.07
250	7.045	34.012	7.022	26.637	143.2	5.583	0.07
275	6.857	34.040	6.831	26.686	138.9	5.936	0.08
300	6.840	34.087	6.812	26.725	135.5	6.279	0.07
350	6.415	34.107	6.383	26.798	129.1	6.939	0.08
400	6.014	34.110	5.980	26.852	124.3	7.573	0.07
450	5.649	34.134	5.611	26.917	118.5	8.178	0.08
500	5.393	34.171	5.352	26.977	113.2	8.756	0.08
505	5.370	34.177	5.329	26.985	112.5	8.813	0.08



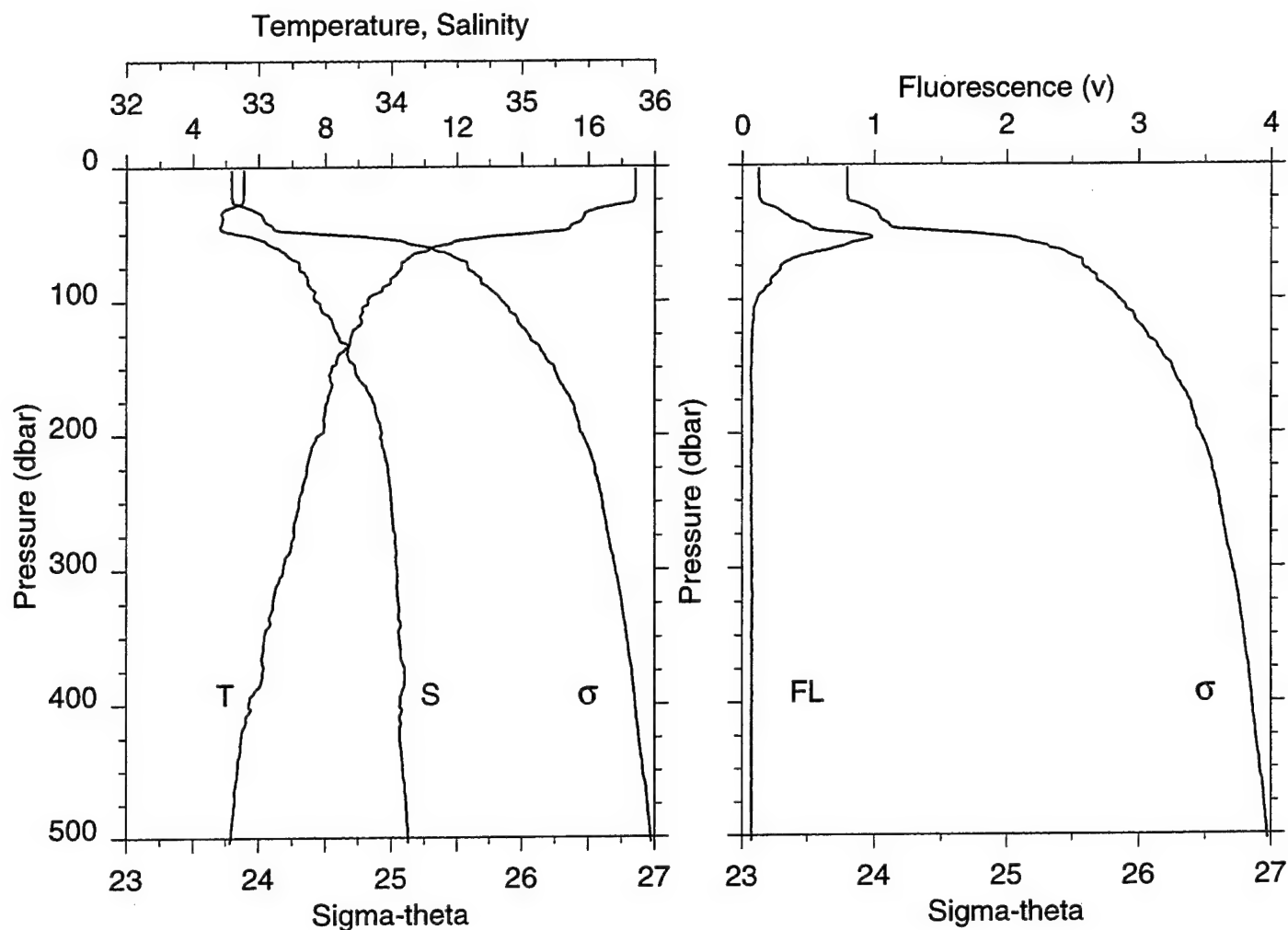
STANO 37 LAT: 37 45.0 N LONG: 126 50.0 W
09 SEP 1993 330 GMT DEPTH 4515

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.372	32.842	17.372	23.772	411.9	0.082	0.14
10	17.379	32.843	17.377	23.771	412.2	0.412	0.14
20	17.210	32.813	17.206	23.789	410.8	0.824	0.16
30	16.789	32.755	16.784	23.843	406.0	1.232	0.27
40	16.288	32.789	16.282	23.985	392.7	1.632	0.62
50	12.564	33.016	12.557	24.943	301.5	1.980	1.01
60	11.207	33.108	11.200	25.267	270.8	2.264	0.77
70	10.434	33.221	10.426	25.491	249.6	2.523	0.41
80	9.868	33.333	9.859	25.675	232.3	2.763	0.29
90	9.375	33.426	9.365	25.828	217.8	2.988	0.19
100	8.959	33.487	8.949	25.942	207.2	3.201	0.12
110	8.605	33.570	8.594	26.062	195.9	3.402	0.07
120	8.467	33.618	8.454	26.121	190.4	3.595	0.07
130	8.385	33.660	8.372	26.166	186.3	3.783	0.07
140	8.258	33.725	8.244	26.236	179.8	3.965	0.07
150	8.102	33.750	8.087	26.279	175.9	4.143	0.07
175	7.925	33.872	7.908	26.401	164.7	4.566	0.07
200	7.730	33.949	7.710	26.491	156.6	4.965	0.08
225	7.581	34.005	7.559	26.557	150.7	5.349	0.08
250	7.202	33.997	7.178	26.604	146.4	5.720	0.07
275	7.026	34.022	7.000	26.648	142.5	6.082	0.08
300	6.791	34.036	6.764	26.692	138.7	6.433	0.07
350	6.311	34.056	6.280	26.771	131.5	7.110	0.07
400	6.012	34.092	5.978	26.838	125.7	7.752	0.08
450	5.735	34.122	5.697	26.897	120.5	8.368	0.08
500	5.394	34.156	5.353	26.965	114.3	8.956	0.08
506	5.396	34.167	5.354	26.974	113.6	9.025	0.07



STA NO 38 LAT: 37 42.3 N LONG: 126 31.8 W
09 SEP 1993 926 GMT DEPTH 4500

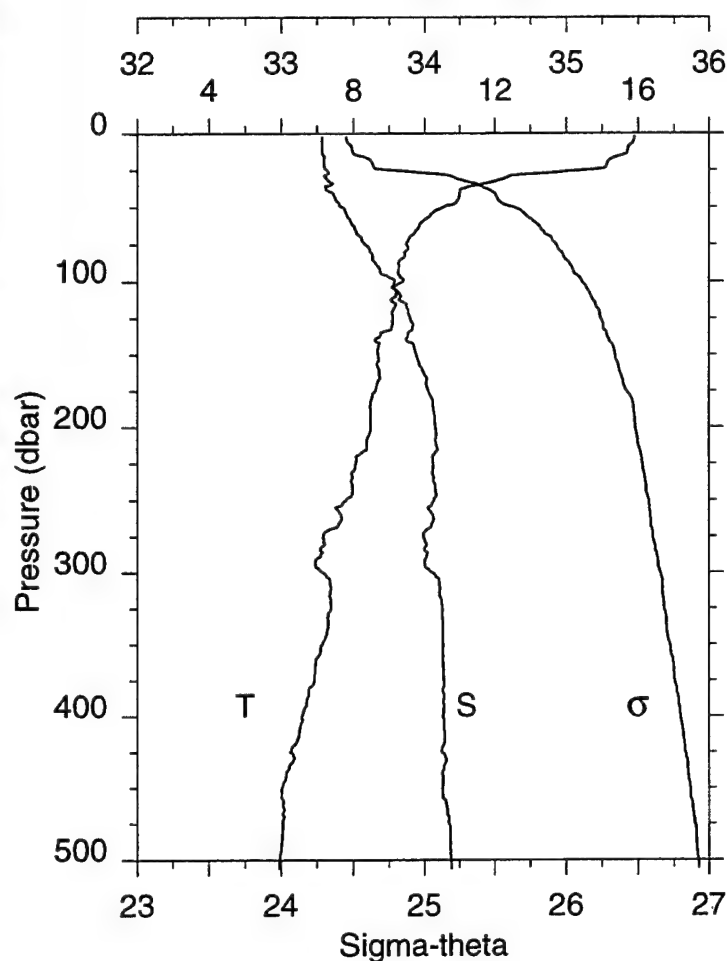
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.418	32.888	17.418	23.796	409.6	0.082	0.12
10	17.414	32.888	17.412	23.797	409.7	0.410	0.13
20	17.414	32.886	17.410	23.797	410.1	0.820	0.13
30	16.680	32.799	16.675	23.902	400.4	1.228	0.19
40	15.809	32.725	15.803	24.043	387.2	1.619	0.38
50	14.315	32.836	14.308	24.452	348.4	1.997	0.68
60	11.250	33.123	11.242	25.272	270.3	2.296	0.79
70	10.417	33.281	10.409	25.541	244.8	2.552	0.38
80	10.161	33.347	10.152	25.636	236.0	2.792	0.27
90	9.729	33.387	9.719	25.740	226.3	3.023	0.19
100	9.294	33.437	9.283	25.850	215.9	3.244	0.12
110	9.074	33.520	9.063	25.950	206.6	3.455	0.09
120	8.913	33.568	8.901	26.013	200.8	3.660	0.08
130	8.743	33.621	8.729	26.081	194.5	3.857	0.07
140	8.395	33.668	8.380	26.171	186.0	4.046	0.07
150	8.192	33.728	8.177	26.249	178.8	4.229	0.07
175	8.057	33.864	8.040	26.376	167.1	4.662	0.07
200	7.804	33.922	7.784	26.459	159.6	5.071	0.07
225	7.442	33.974	7.421	26.552	151.0	5.458	0.07
250	7.205	34.000	7.182	26.606	146.3	5.830	0.07
275	7.061	34.030	7.035	26.650	142.4	6.191	0.07
300	6.743	34.044	6.716	26.705	137.4	6.541	0.07
350	6.174	34.059	6.143	26.791	129.5	7.207	0.07
400	5.719	34.066	5.686	26.854	123.9	7.839	0.07
450	5.372	34.086	5.336	26.912	118.7	8.446	0.07
500	5.176	34.128	5.136	26.968	113.8	9.025	0.08
504	5.135	34.129	5.095	26.974	113.2	9.070	0.07



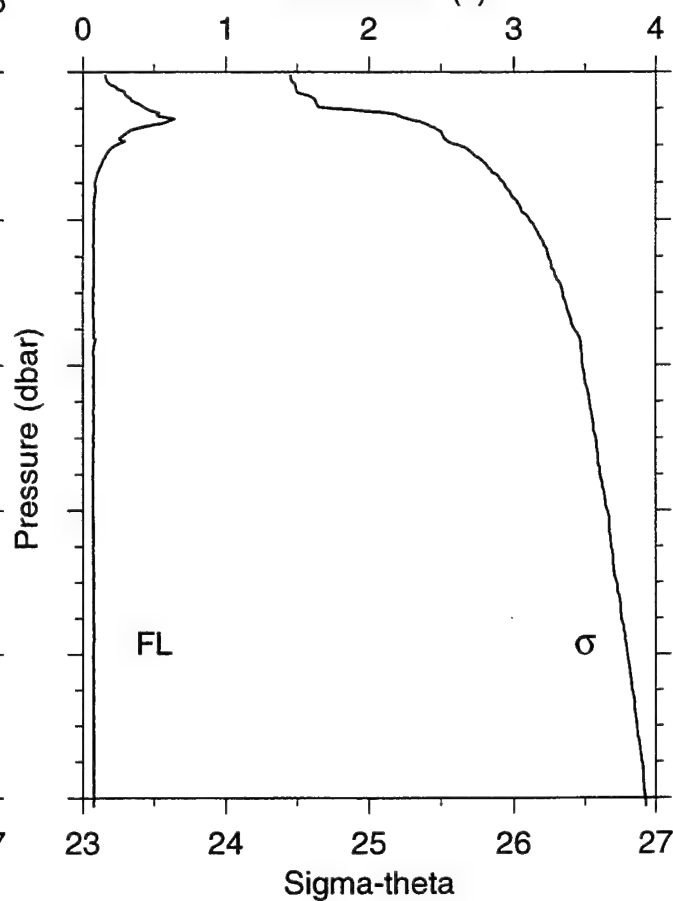
STAN NO 38 LAT: 37 42.3 N LONG: 126 31.8 W
 09 SEP 1993 926 GMT DEPTH 4500

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	17.418	32.888	17.418	23.796	409.6	0.082	0.12
10	17.414	32.888	17.412	23.797	409.7	0.410	0.13
20	17.414	32.886	17.410	23.797	410.1	0.820	0.13
30	16.680	32.799	16.675	23.902	400.4	1.228	0.19
40	15.809	32.725	15.803	24.043	387.2	1.619	0.38
50	14.315	32.836	14.308	24.452	348.4	1.997	0.68
60	11.250	33.123	11.242	25.272	270.3	2.296	0.79
70	10.417	33.281	10.409	25.541	244.8	2.552	0.38
80	10.161	33.347	10.152	25.636	236.0	2.792	0.27
90	9.729	33.387	9.719	25.740	226.3	3.023	0.19
100	9.294	33.437	9.283	25.850	215.9	3.244	0.12
110	9.074	33.520	9.063	25.950	206.6	3.455	0.09
120	8.913	33.568	8.901	26.013	200.8	3.660	0.08
130	8.743	33.621	8.729	26.081	194.5	3.857	0.07
140	8.395	33.668	8.380	26.171	186.0	4.046	0.07
150	8.192	33.728	8.177	26.249	178.8	4.229	0.07
175	8.057	33.864	8.040	26.376	167.1	4.662	0.07
200	7.804	33.922	7.784	26.459	159.6	5.071	0.07
225	7.442	33.974	7.421	26.552	151.0	5.458	0.07
250	7.205	34.000	7.182	26.606	146.3	5.830	0.07
275	7.061	34.030	7.035	26.650	142.4	6.191	0.07
300	6.743	34.044	6.716	26.705	137.4	6.541	0.07
350	6.174	34.059	6.143	26.791	129.5	7.207	0.07
400	5.719	34.066	5.686	26.854	123.9	7.839	0.07
450	5.372	34.086	5.336	26.912	118.7	8.446	0.07
500	5.176	34.128	5.136	26.968	113.8	9.025	0.08
504	5.135	34.129	5.095	26.974	113.2	9.070	0.07

Temperature, Salinity

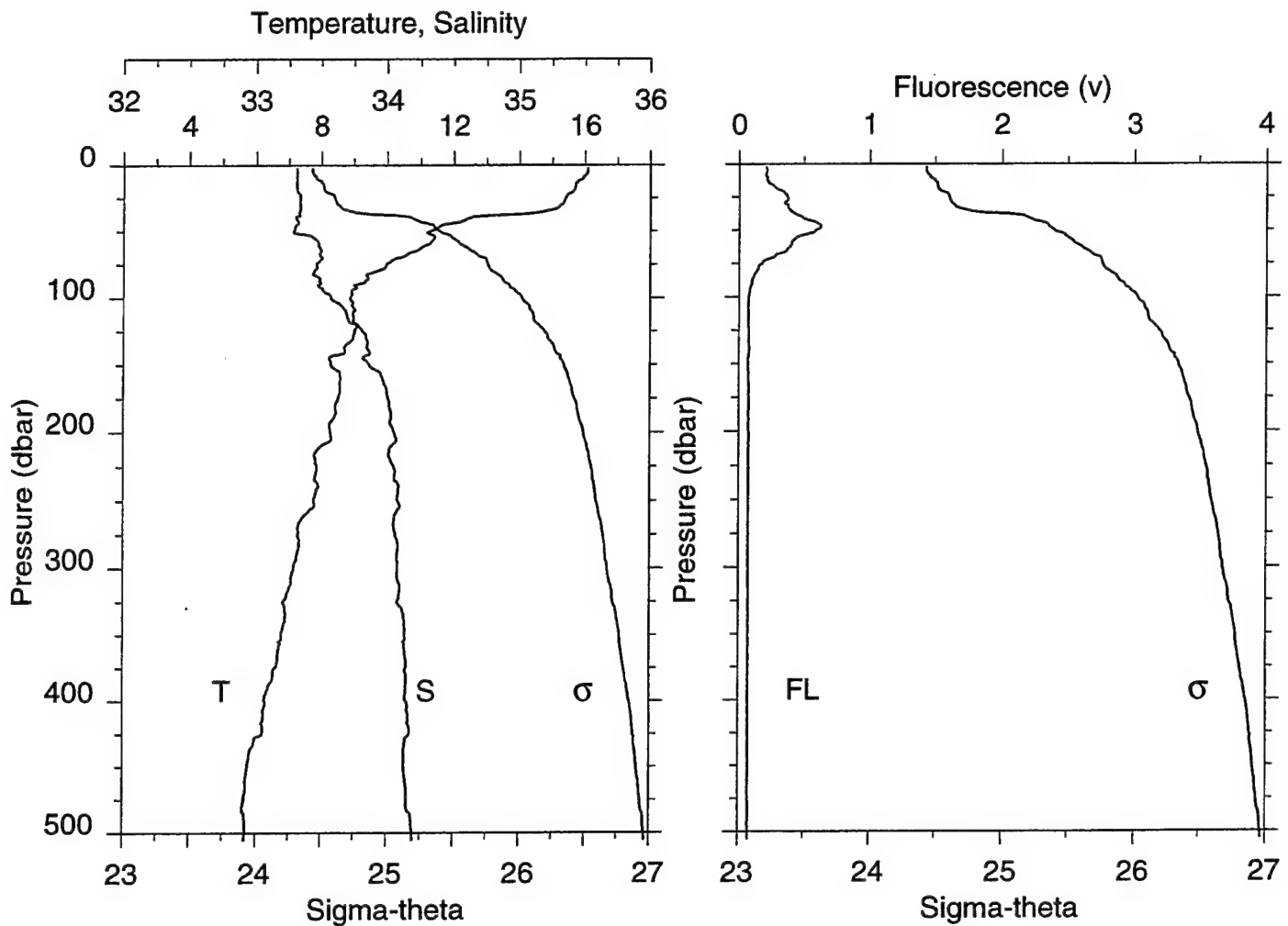


Fluorescence (v)



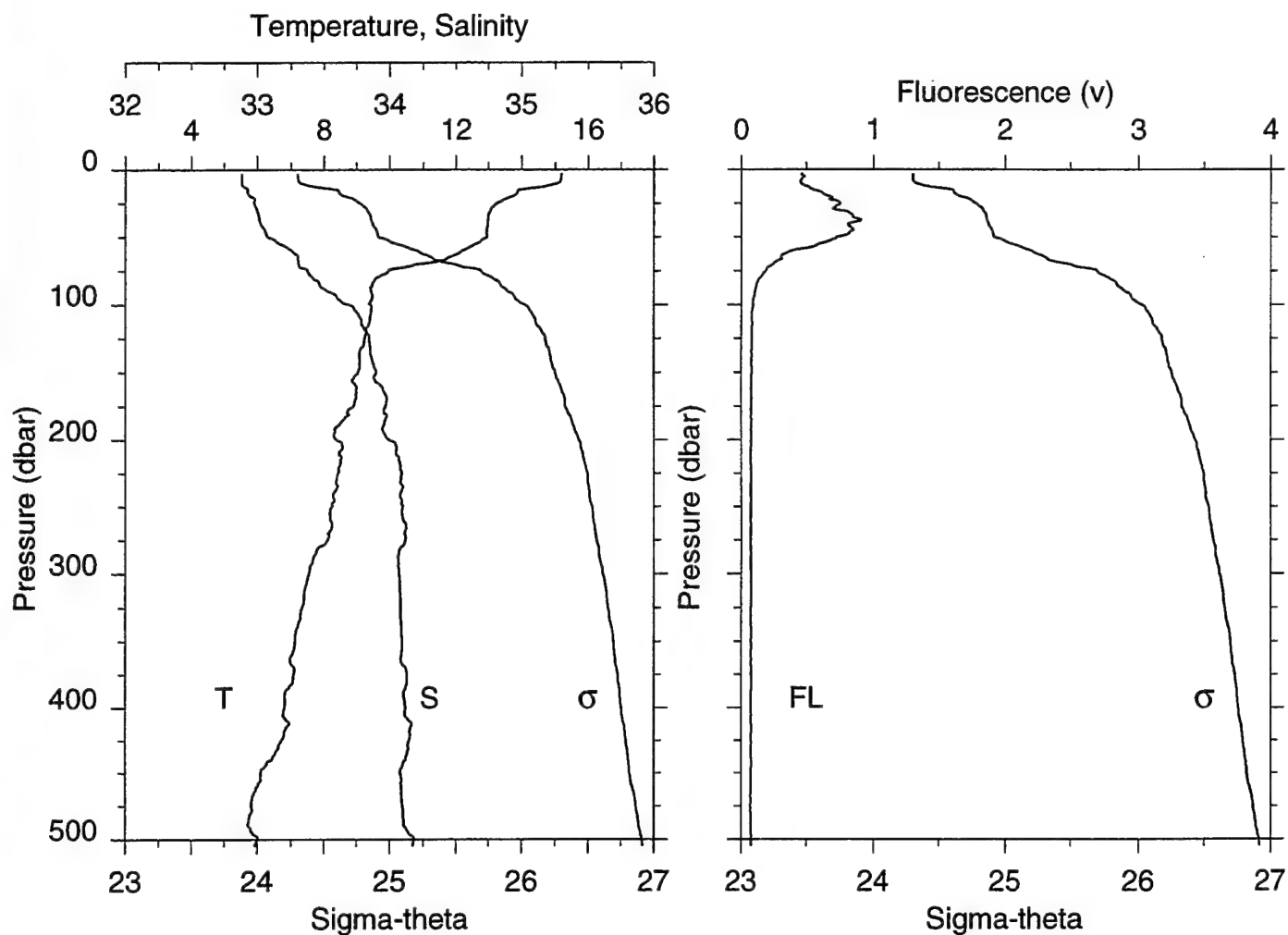
STA NO 40 LAT: 37 19.8 N LONG: 125 25.8 W
16 SEP 1993 1910 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.911	33.284	15.910	24.449	347.3	0.069	0.16
10	15.733	33.283	15.731	24.488	343.8	0.346	0.23
20	15.152	33.298	15.149	24.628	330.8	0.685	0.35
30	12.354	33.309	12.350	25.210	275.5	0.995	0.53
40	11.014	33.348	11.009	25.488	249.3	1.256	0.33
50	10.541	33.426	10.535	25.632	235.8	1.501	0.23
60	9.922	33.482	9.915	25.781	221.8	1.729	0.14
70	9.582	33.554	9.574	25.894	211.2	1.946	0.10
80	9.425	33.615	9.416	25.967	204.4	2.154	0.09
90	9.261	33.673	9.251	26.039	197.8	2.355	0.08
100	9.380	33.787	9.369	26.109	191.4	2.550	0.08
110	9.191	33.830	9.179	26.174	185.4	2.738	0.08
120	9.101	33.885	9.088	26.231	180.1	2.921	0.08
130	9.075	33.916	9.061	26.260	177.6	3.100	0.08
140	8.598	33.871	8.583	26.300	173.9	3.276	0.08
150	8.680	33.942	8.664	26.343	170.0	3.447	0.08
175	8.604	34.029	8.586	26.423	162.9	3.864	0.08
200	8.471	34.078	8.450	26.482	157.7	4.262	0.08
225	8.060	34.061	8.038	26.531	153.3	4.651	0.08
250	7.812	34.069	7.787	26.574	149.6	5.030	0.08
275	7.175	33.992	7.149	26.604	146.8	5.400	0.07
300	7.165	34.055	7.137	26.655	142.4	5.762	0.07
350	7.138	34.133	7.105	26.722	136.9	6.462	0.08
400	6.576	34.132	6.540	26.797	130.1	7.129	0.07
450	6.023	34.129	5.984	26.867	123.7	7.763	0.08
500	5.965	34.190	5.921	26.923	119.0	8.368	0.08
506	5.953	34.195	5.909	26.928	118.6	8.440	0.08



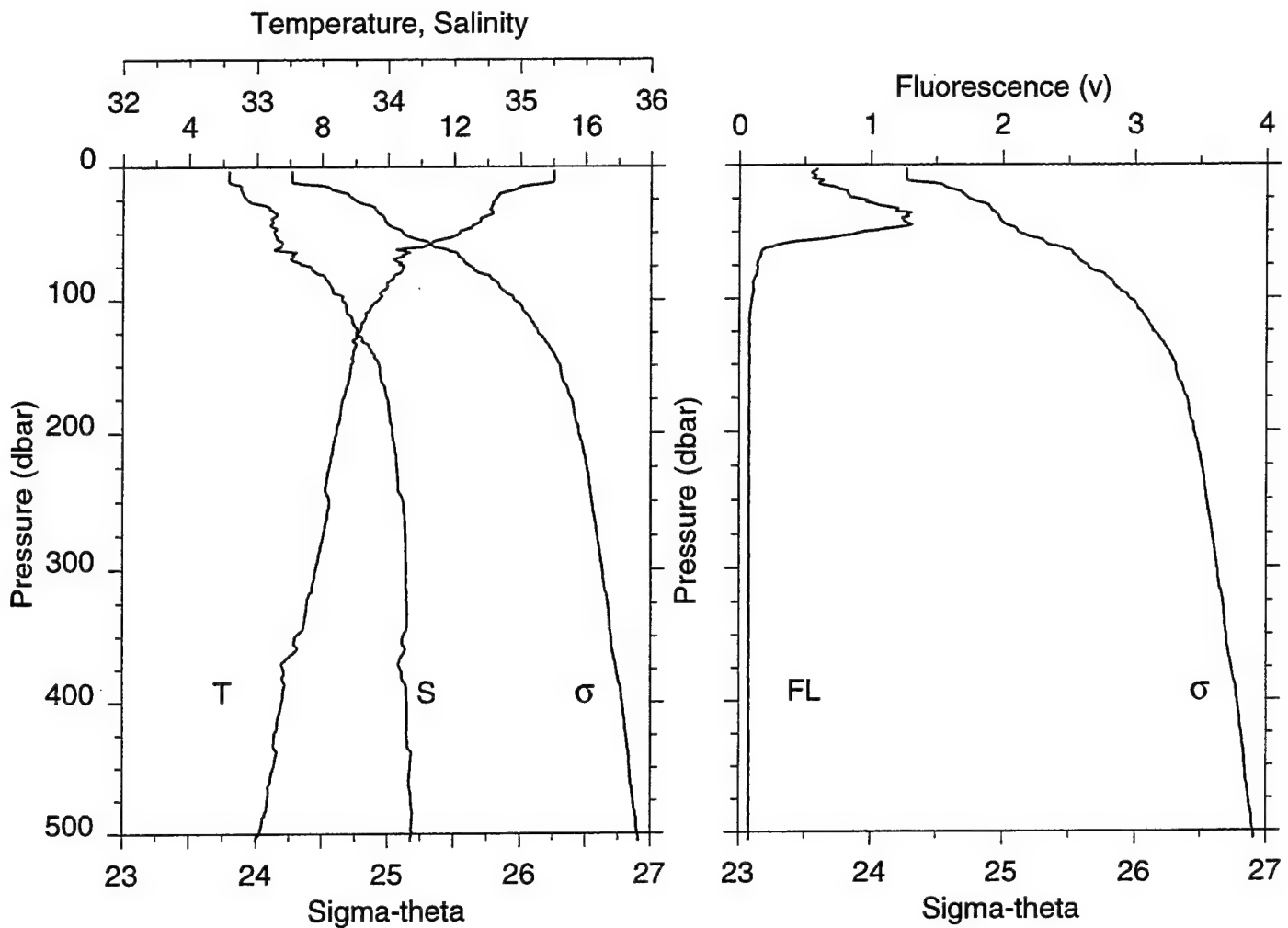
STAN NO 41 LAT: 37 18.0 N LONG: 125 31.5 W
16 SEP 1993 2300 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.077	33.308	16.077	24.430	349.1	0.070	0.20
10	15.949	33.307	15.947	24.458	346.7	0.349	0.21
20	15.640	33.314	15.637	24.533	339.8	0.691	0.32
30	15.283	33.336	15.279	24.629	331.0	1.025	0.35
40	12.476	33.305	12.471	25.184	278.3	1.338	0.48
50	11.247	33.285	11.240	25.397	258.1	1.605	0.59
60	11.194	33.477	11.186	25.557	243.2	1.854	0.40
70	10.288	33.507	10.280	25.739	226.0	2.089	0.27
80	9.647	33.446	9.639	25.799	220.5	2.313	0.14
90	9.006	33.473	8.996	25.923	208.7	2.528	0.10
100	8.873	33.573	8.862	26.023	199.4	2.732	0.07
110	8.988	33.689	8.976	26.095	192.8	2.928	0.07
120	9.096	33.777	9.083	26.148	188.1	3.119	0.07
130	8.972	33.841	8.958	26.217	181.6	3.303	0.08
140	8.724	33.866	8.709	26.276	176.2	3.481	0.08
150	8.291	33.865	8.276	26.342	170.0	3.654	0.07
175	8.515	34.009	8.497	26.421	163.0	4.070	0.08
200	8.287	34.053	8.267	26.490	156.9	4.470	0.08
225	7.864	34.051	7.842	26.552	151.3	4.855	0.08
250	7.777	34.082	7.752	26.589	148.1	5.229	0.08
275	7.286	34.063	7.260	26.645	143.0	5.592	0.08
300	7.166	34.081	7.137	26.676	140.4	5.947	0.08
350	6.784	34.136	6.752	26.772	131.8	6.627	0.08
400	6.288	34.149	6.253	26.848	125.0	7.271	0.08
450	5.761	34.132	5.723	26.902	120.1	7.883	0.08
500	5.691	34.194	5.649	26.960	115.2	8.470	0.08
506	5.668	34.195	5.625	26.963	114.9	8.539	0.08



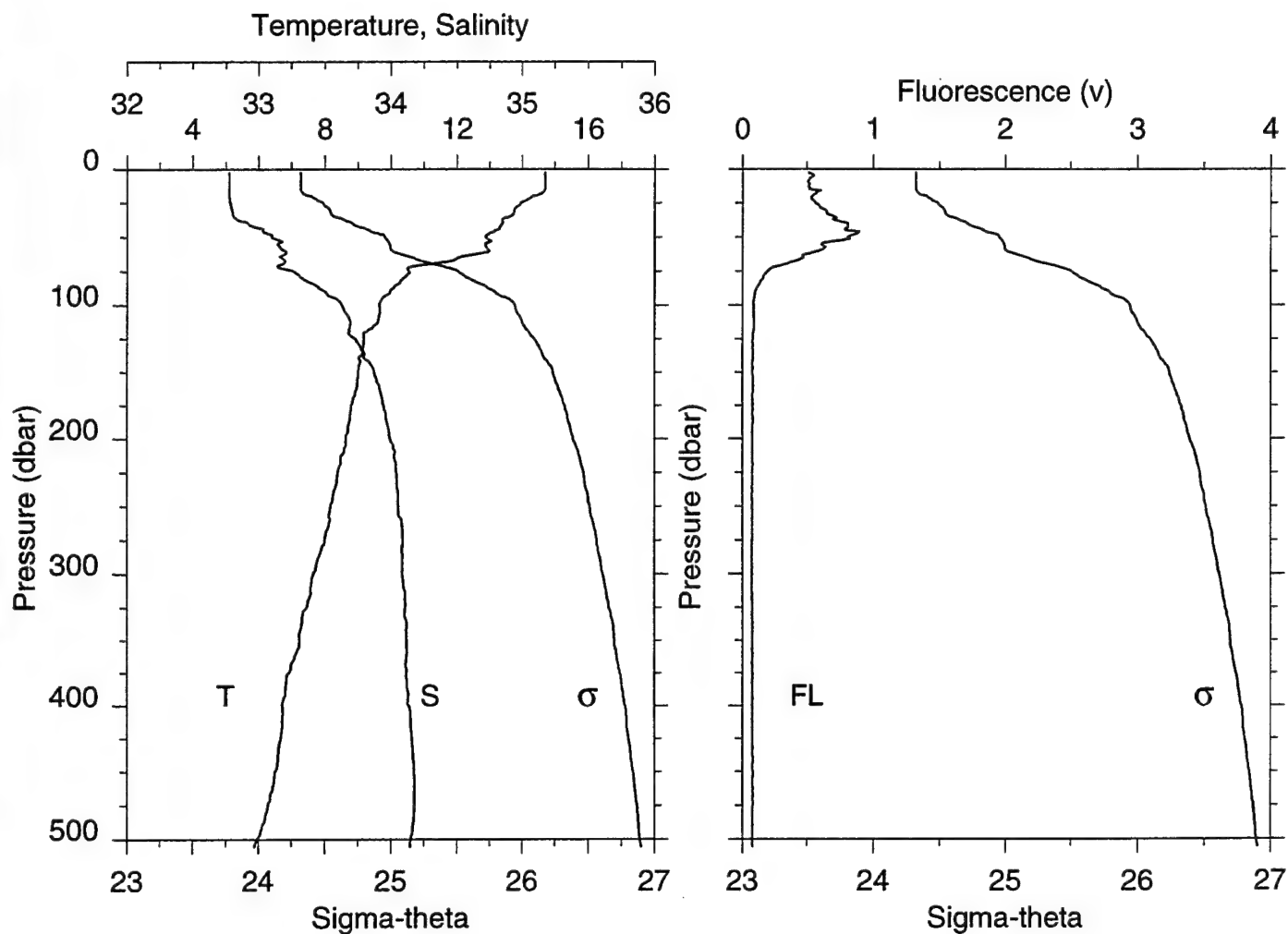
STAN NO 42 LAT: 37 26.0 N LONG: 125 19.0 W
 17 SEP 1993 309 GMT DEPTH 4370

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.189	32.884	15.188	24.301	361.4	0.108	0.47
10	15.094	32.886	15.093	24.323	359.5	0.361	0.46
20	13.704	32.952	13.701	24.667	327.1	0.701	0.68
30	13.069	33.000	13.065	24.831	311.6	1.018	0.72
40	12.977	33.028	12.972	24.872	308.0	1.328	0.82
50	12.954	33.080	12.947	24.917	304.0	1.634	0.72
60	12.179	33.259	12.171	25.206	276.7	1.924	0.39
70	10.769	33.308	10.761	25.501	248.7	2.190	0.25
80	9.594	33.415	9.585	25.784	221.9	2.423	0.15
90	9.440	33.531	9.430	25.899	211.1	2.639	0.11
100	9.437	33.697	9.426	26.030	198.9	2.845	0.09
110	9.401	33.780	9.389	26.101	192.4	3.040	0.08
120	9.298	33.825	9.285	26.153	187.6	3.230	0.08
130	9.214	33.851	9.200	26.187	184.6	3.416	0.08
140	9.091	33.866	9.076	26.218	181.8	3.599	0.08
150	9.038	33.896	9.022	26.250	178.9	3.779	0.08
175	8.908	33.967	8.889	26.327	172.1	4.216	0.08
200	8.384	33.995	8.363	26.431	162.6	4.633	0.08
225	8.432	34.090	8.409	26.498	156.7	5.033	0.08
250	8.237	34.096	8.211	26.533	153.7	5.422	0.07
275	8.104	34.114	8.076	26.567	150.9	5.803	0.07
300	7.547	34.068	7.518	26.612	146.7	6.175	0.08
350	7.116	34.092	7.084	26.692	139.7	6.890	0.08
400	6.807	34.115	6.770	26.753	134.4	7.575	0.07
450	6.105	34.076	6.065	26.814	128.7	8.233	0.07
500	6.005	34.178	5.962	26.908	120.5	8.854	0.08
505	5.922	34.171	5.878	26.913	120.0	8.914	0.08



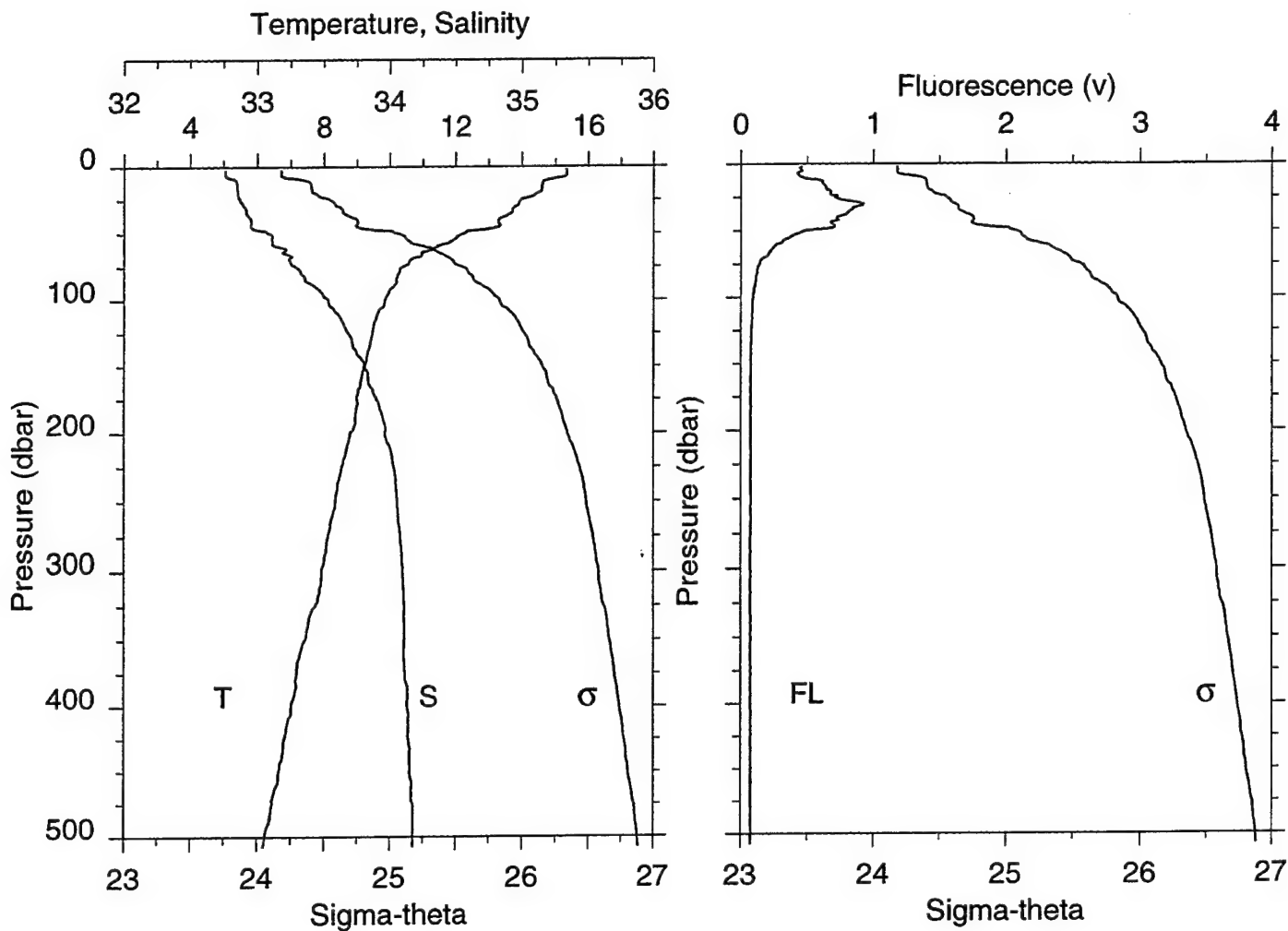
STANO 43 LAT: 37 28.5 N LONG: 125 15.2 W
17 SEP 1993 548 GMT DEPTH 4250

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	15.014	32.791	15.013	24.267	364.7	0.109	0.59
10	15.016	32.791	15.015	24.267	364.9	0.365	0.56
20	13.387	32.896	13.385	24.687	325.1	0.709	0.82
30	13.125	33.086	13.121	24.887	306.3	1.028	1.04
40	12.791	33.115	12.786	24.976	298.1	1.330	1.23
50	12.146	33.134	12.139	25.115	285.1	1.622	0.96
60	11.082	33.186	11.075	25.350	262.8	1.895	0.28
70	10.200	33.274	10.192	25.572	241.8	2.143	0.15
80	10.295	33.466	10.286	25.706	229.3	2.380	0.13
90	9.976	33.571	9.965	25.842	216.6	2.600	0.11
100	9.686	33.651	9.674	25.953	206.2	2.811	0.09
110	9.301	33.686	9.289	26.043	197.8	3.013	0.08
120	9.176	33.745	9.163	26.109	191.7	3.207	0.08
130	8.954	33.799	8.941	26.187	184.5	3.396	0.08
140	8.944	33.879	8.929	26.252	178.5	3.577	0.08
150	8.875	33.934	8.859	26.306	173.6	3.753	0.08
175	8.624	33.999	8.606	26.396	165.4	4.179	0.08
200	8.442	34.032	8.421	26.450	160.7	4.587	0.08
225	8.228	34.068	8.205	26.512	155.3	4.981	0.08
250	8.227	34.117	8.202	26.550	152.1	5.365	0.08
275	8.045	34.135	8.018	26.592	148.5	5.740	0.08
300	7.818	34.141	7.789	26.630	145.2	6.107	0.07
350	7.181	34.114	7.147	26.701	138.9	6.817	0.08
400	6.764	34.147	6.727	26.784	131.5	7.494	0.08
450	6.509	34.171	6.468	26.838	126.9	8.139	0.08
500	6.099	34.186	6.055	26.903	121.0	8.760	0.08
506	5.993	34.176	5.949	26.908	120.5	8.833	0.08



STA NO 44 LAT: 37 31.1 N LONG: 125 10.4 W
17 SEP 1993 859 GMT DEPTH 4300

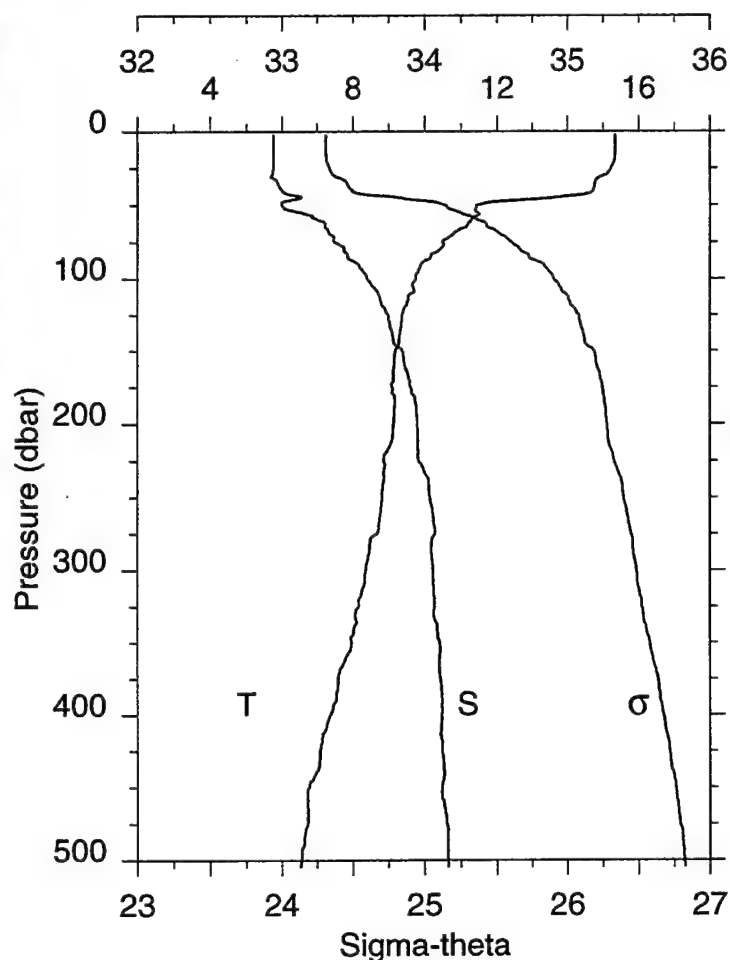
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.714	32.774	14.713	24.319	359.7	0.072	0.52
10	14.717	32.775	14.716	24.319	360.0	0.360	0.51
20	14.324	32.774	14.321	24.401	352.4	0.719	0.54
30	13.755	32.794	13.751	24.535	339.9	1.064	0.64
40	13.379	32.921	13.374	24.709	323.5	1.398	0.81
50	12.869	33.104	12.863	24.952	300.6	1.710	0.81
60	12.983	33.209	12.975	25.011	295.3	2.007	0.59
70	10.981	33.164	10.973	25.351	262.9	2.288	0.32
80	10.366	33.335	10.357	25.592	240.2	2.537	0.16
90	9.968	33.504	9.958	25.791	221.4	2.768	0.10
100	9.647	33.630	9.636	25.943	207.1	2.981	0.09
110	9.619	33.685	9.607	25.991	202.9	3.186	0.09
120	9.200	33.678	9.188	26.053	197.0	3.387	0.08
130	9.161	33.765	9.147	26.128	190.1	3.580	0.08
140	9.040	33.804	9.025	26.178	185.5	3.768	0.08
150	9.012	33.875	8.996	26.238	180.1	3.950	0.08
175	8.804	33.946	8.786	26.327	172.1	4.391	0.08
200	8.638	33.993	8.617	26.390	166.5	4.815	0.08
225	8.393	34.043	8.370	26.467	159.6	5.221	0.08
250	8.170	34.058	8.145	26.512	155.6	5.616	0.08
275	7.993	34.091	7.965	26.566	151.0	5.999	0.07
300	7.659	34.088	7.629	26.612	146.8	6.371	0.08
350	7.246	34.120	7.212	26.696	139.4	7.084	0.08
400	6.745	34.138	6.708	26.780	131.9	7.763	0.07
450	6.514	34.175	6.473	26.840	126.7	8.411	0.08
500	5.981	34.150	5.938	26.889	122.2	9.033	0.08
506	5.880	34.149	5.837	26.901	121.1	9.106	0.08



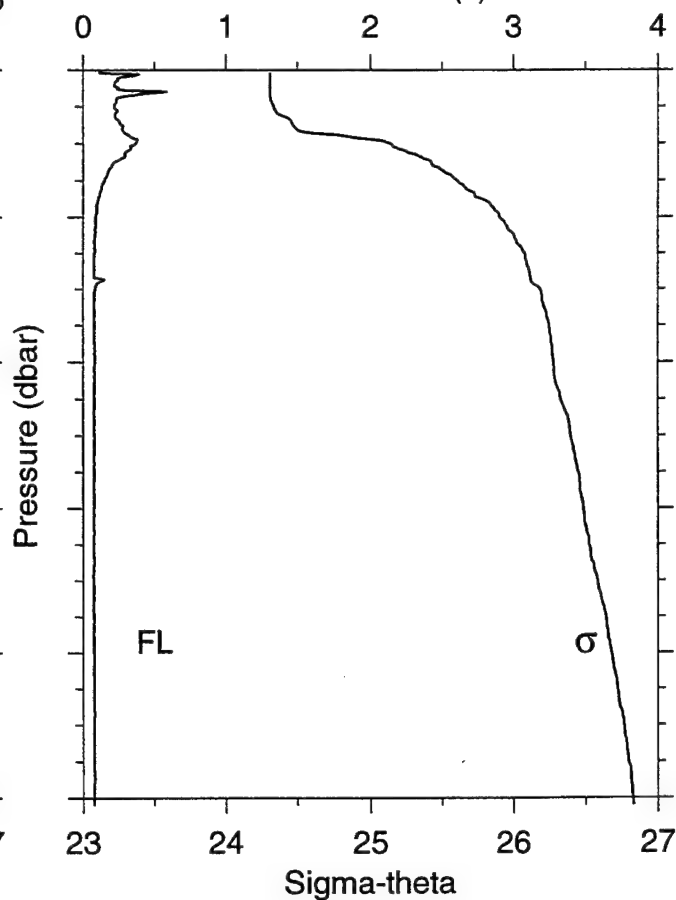
STANO 45 LAT: 37 34.5 N LONG: 125 5.1 W
 17 SEP 1993 1138 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.328	32.763	15.328	24.178	373.2	0.075	0.46
10	14.780	32.840	14.779	24.356	356.4	0.371	0.47
20	14.442	32.857	14.439	24.441	348.6	0.723	0.67
30	13.787	32.911	13.783	24.619	331.9	1.063	0.92
40	13.297	32.954	13.292	24.751	319.5	1.390	0.73
50	12.253	33.098	12.247	25.066	289.7	1.701	0.47
60	11.446	33.171	11.438	25.273	270.2	1.983	0.27
70	10.607	33.244	10.599	25.479	250.7	2.242	0.17
80	10.262	33.326	10.253	25.603	239.2	2.487	0.12
90	10.095	33.439	10.085	25.719	228.3	2.721	0.11
100	9.851	33.531	9.840	25.832	217.8	2.944	0.10
110	9.626	33.601	9.614	25.925	209.1	3.158	0.09
120	9.505	33.655	9.492	25.987	203.4	3.364	0.08
130	9.426	33.711	9.412	26.043	198.2	3.565	0.08
140	9.321	33.748	9.306	26.089	194.1	3.761	0.08
150	9.206	33.807	9.189	26.154	188.1	3.952	0.08
175	8.998	33.900	8.980	26.260	178.5	4.411	0.08
200	8.796	33.962	8.774	26.341	171.2	4.848	0.08
225	8.530	34.030	8.507	26.436	162.6	5.265	0.08
250	8.342	34.056	8.317	26.485	158.3	5.665	0.08
275	8.123	34.080	8.095	26.538	153.7	6.055	0.08
300	7.933	34.099	7.903	26.581	149.9	6.435	0.08
350	7.421	34.110	7.387	26.664	142.6	7.167	0.08
400	7.028	34.135	6.990	26.739	136.0	7.862	0.08
450	6.648	34.152	6.607	26.805	130.2	8.526	0.08
500	6.239	34.176	6.195	26.877	123.7	9.159	0.08
508	6.178	34.175	6.133	26.884	123.0	9.258	0.08

Temperature, Salinity

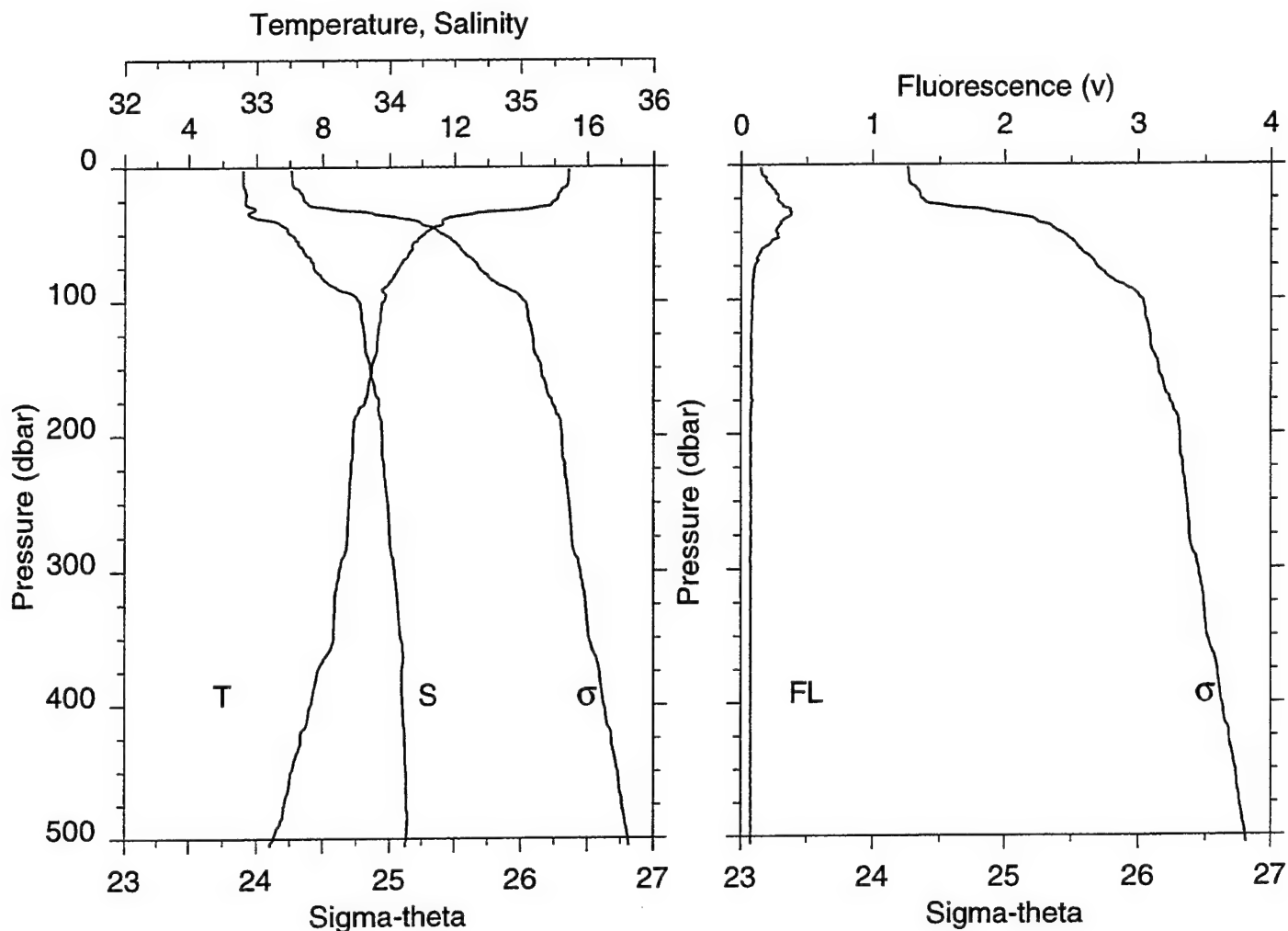


Fluorescence (v)



STA NO 46 LAT: 37 39.0 N LONG: 124 57.0 W
17 SEP 1993 1452 GMT DEPTH 4300

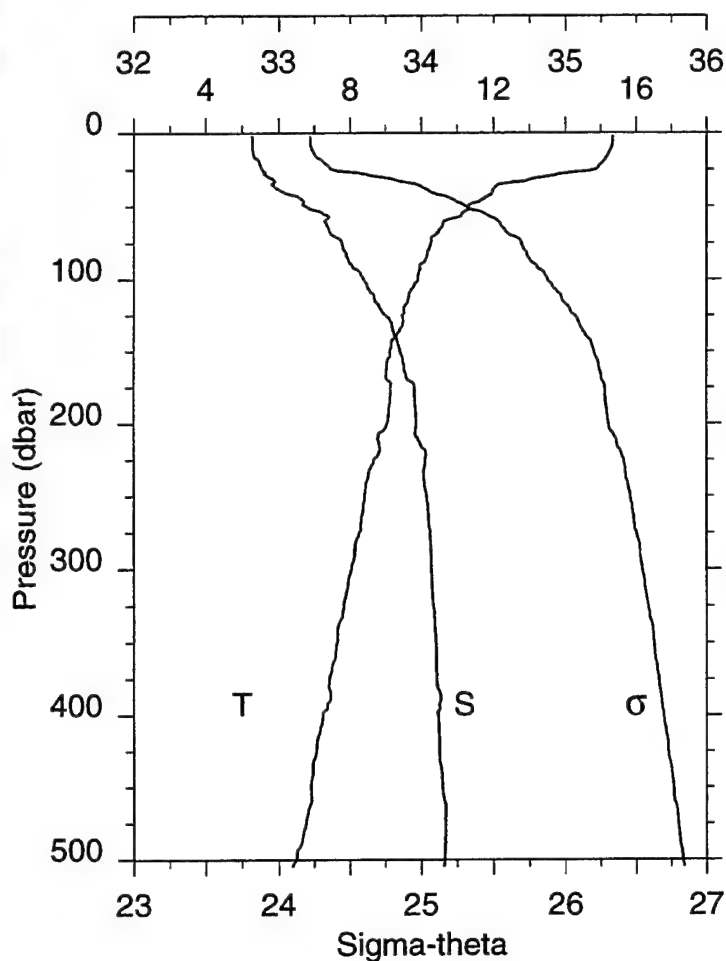
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.343	32.939	15.343	24.310	360.6	0.072	0.11
10	15.345	32.940	15.343	24.310	360.8	0.361	0.22
20	15.329	32.940	15.326	24.314	360.7	0.721	0.23
30	15.021	32.927	15.016	24.371	355.5	1.080	0.22
40	14.728	33.003	14.722	24.493	344.2	1.428	0.27
50	11.423	33.001	11.417	25.145	282.1	1.742	0.37
60	11.288	33.261	11.281	25.372	260.8	2.014	0.27
70	10.773	33.349	10.764	25.532	245.7	2.267	0.17
80	10.411	33.436	10.402	25.663	233.5	2.506	0.13
90	9.894	33.540	9.884	25.832	217.6	2.733	0.10
100	9.755	33.600	9.743	25.902	211.1	2.947	0.09
110	9.622	33.678	9.610	25.985	203.4	3.154	0.08
120	9.436	33.721	9.422	26.049	197.5	3.355	0.08
130	9.356	33.756	9.342	26.089	193.9	3.550	0.08
140	9.302	33.779	9.287	26.117	191.5	3.743	0.08
150	9.191	33.844	9.175	26.186	185.1	3.932	0.08
175	9.101	33.903	9.083	26.247	179.8	4.388	0.08
200	9.137	33.950	9.116	26.277	177.4	4.834	0.08
225	8.859	33.957	8.835	26.328	173.0	5.274	0.08
250	8.818	34.036	8.792	26.397	167.0	5.697	0.08
275	8.672	34.072	8.643	26.448	162.5	6.109	0.08
300	8.354	34.057	8.323	26.485	159.3	6.511	0.08
350	7.958	34.103	7.923	26.581	150.9	7.289	0.07
400	7.369	34.118	7.331	26.678	142.0	8.020	0.08
450	6.777	34.121	6.735	26.763	134.3	8.710	0.08
500	6.551	34.160	6.506	26.824	129.0	9.367	0.08
505	6.534	34.162	6.488	26.828	128.7	9.432	0.08



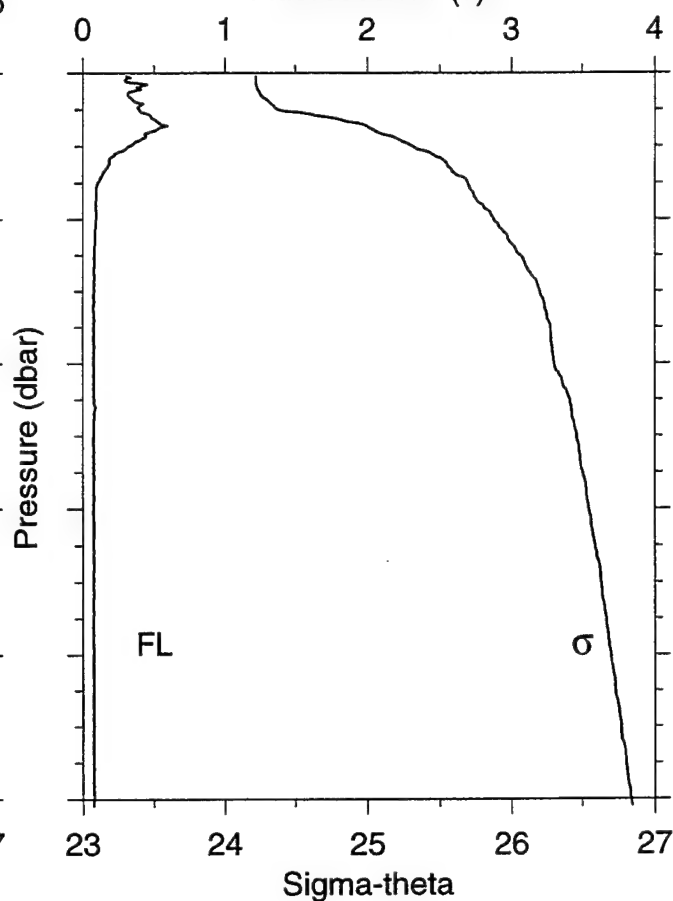
STANO 47 LAT: 37 45.0 N LONG: 124 48.0 W
17 SEP 1993 1755 GMT DEPTH 4050

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.427	32.899	15.427	24.260	365.3	0.073	0.15
10	15.408	32.900	15.406	24.266	365.0	0.365	0.19
20	15.126	32.922	15.123	24.344	357.8	0.727	0.26
30	14.499	32.979	14.494	24.523	341.0	1.082	0.32
40	11.622	33.134	11.617	25.212	275.6	1.389	0.33
50	11.050	33.262	11.043	25.415	256.5	1.654	0.27
60	10.701	33.345	10.694	25.541	244.7	1.904	0.20
70	10.399	33.421	10.391	25.653	234.2	2.144	0.12
80	10.131	33.484	10.121	25.748	225.3	2.374	0.10
90	9.806	33.602	9.796	25.895	211.6	2.594	0.09
100	9.778	33.771	9.767	26.032	198.8	2.798	0.09
110	9.720	33.785	9.708	26.052	197.0	2.996	0.08
120	9.656	33.800	9.642	26.075	195.1	3.192	0.08
130	9.615	33.812	9.601	26.091	193.8	3.387	0.08
140	9.565	33.825	9.549	26.110	192.2	3.580	0.08
150	9.450	33.853	9.433	26.151	188.5	3.770	0.08
175	9.258	33.918	9.239	26.233	181.1	4.233	0.09
200	8.900	33.942	8.879	26.309	174.3	4.675	0.07
225	8.841	33.958	8.817	26.331	172.7	5.109	0.08
250	8.781	33.986	8.755	26.363	170.1	5.538	0.08
275	8.737	34.000	8.708	26.381	168.9	5.961	0.08
300	8.494	34.038	8.463	26.449	162.8	6.377	0.08
350	8.325	34.086	8.289	26.513	157.5	7.176	0.08
400	7.633	34.100	7.594	26.626	147.2	7.932	0.08
450	7.039	34.126	6.997	26.731	137.5	8.644	0.07
500	6.518	34.131	6.472	26.805	130.7	9.317	0.08
506	6.411	34.124	6.365	26.813	129.9	9.395	0.08

Temperature, Salinity

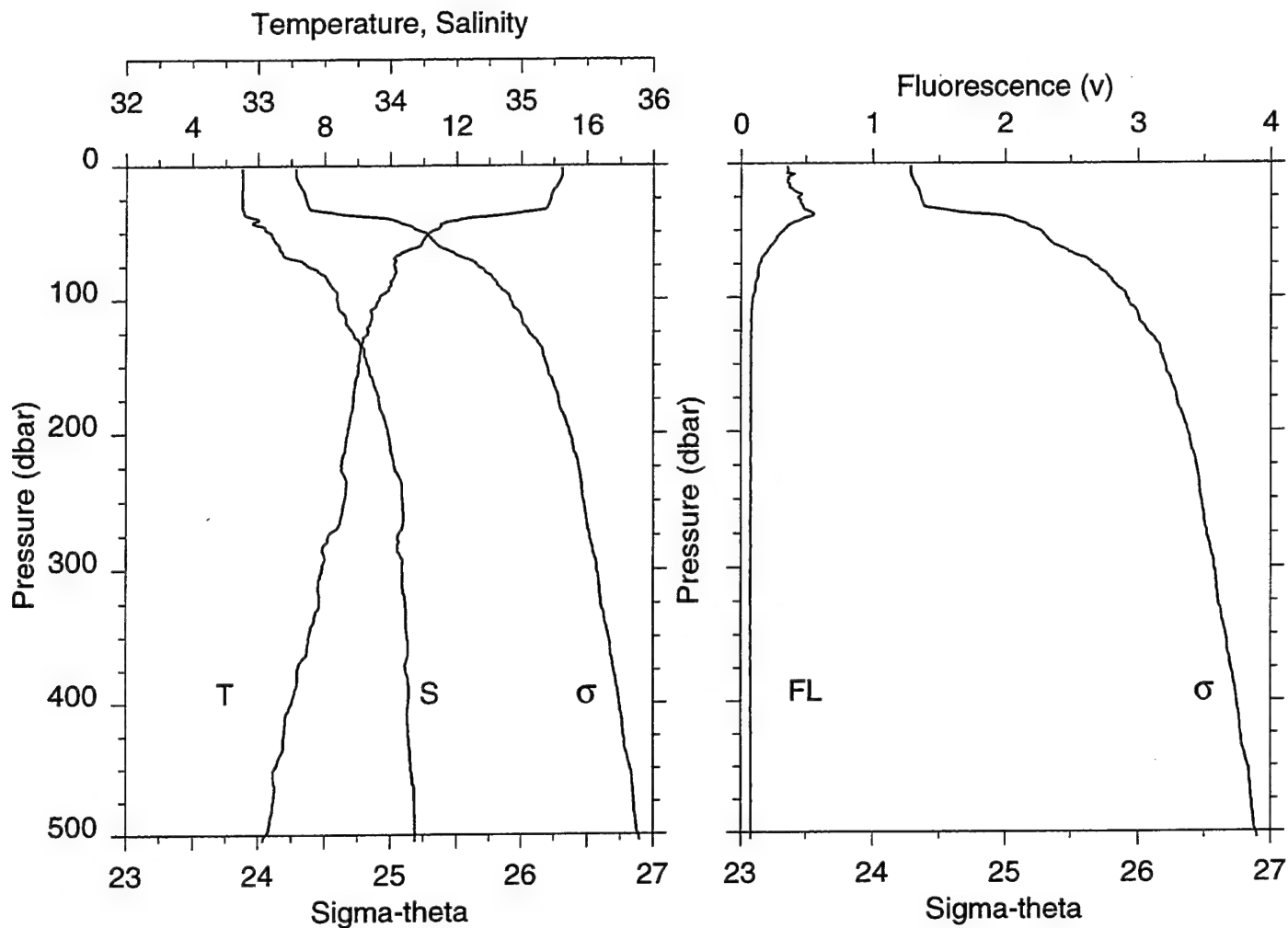


Fluorescence (v)



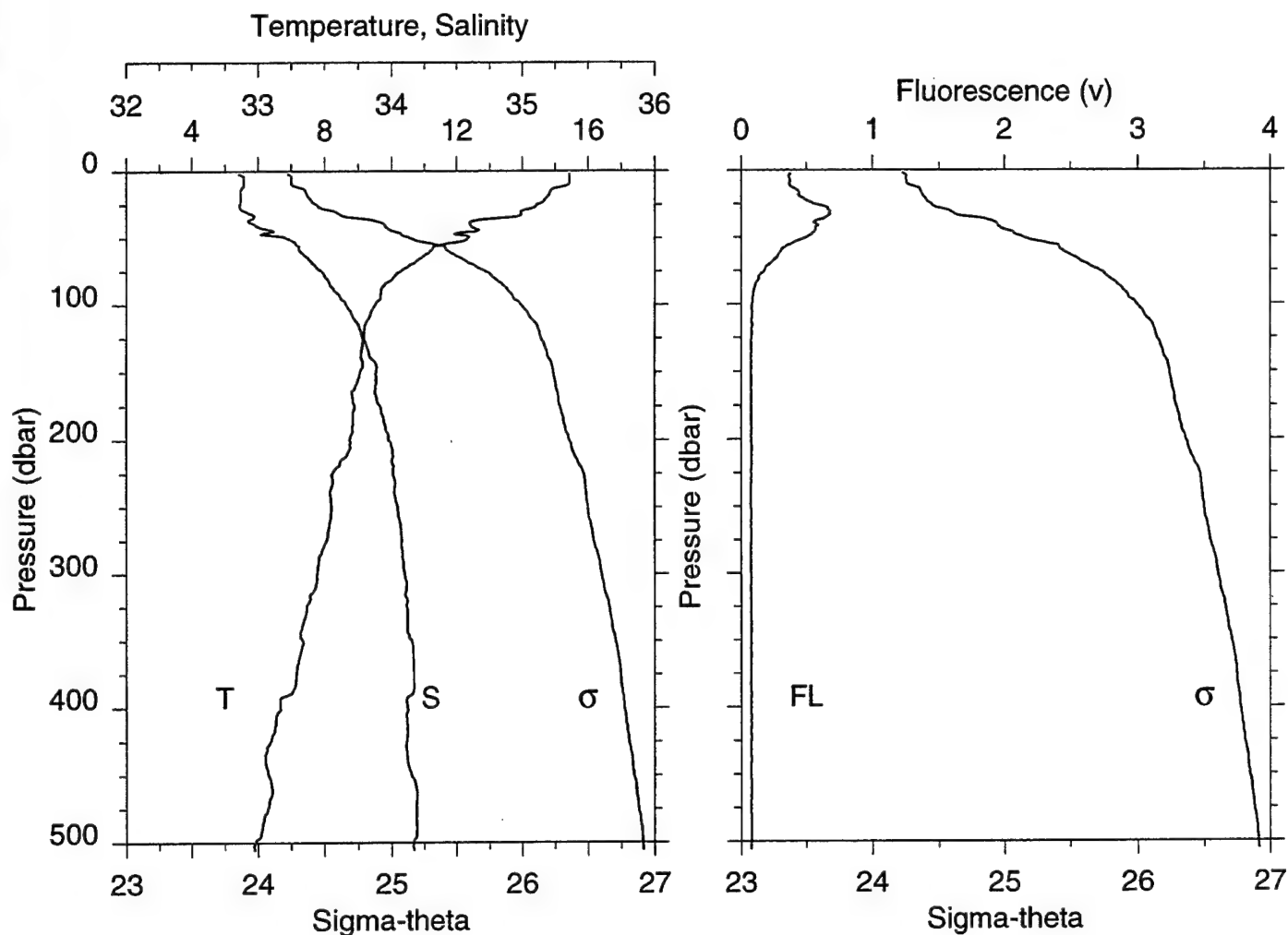
STANO 48 LAT: 37 36.0 N LONG: 124 36.8 W
17 SEP 1993 2200 GMT DEPTH 4000

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.331	32.819	15.331	24.220	369.1	0.074	0.30
10	15.298	32.821	15.297	24.229	368.5	0.369	0.38
20	15.053	32.867	15.050	24.318	360.3	0.735	0.38
30	13.426	32.932	13.422	24.708	323.4	1.083	0.48
40	11.976	33.026	11.971	25.062	289.8	1.385	0.48
50	11.301	33.190	11.295	25.314	266.1	1.662	0.32
60	10.642	33.323	10.635	25.535	245.2	1.916	0.18
70	10.364	33.386	10.356	25.632	236.2	2.158	0.13
80	10.200	33.460	10.190	25.718	228.3	2.389	0.09
90	9.965	33.515	9.955	25.800	220.6	2.614	0.09
100	9.904	33.597	9.893	25.875	213.7	2.831	0.09
110	9.667	33.661	9.655	25.964	205.4	3.041	0.08
120	9.517	33.709	9.503	26.027	199.6	3.244	0.08
130	9.492	33.794	9.478	26.097	193.2	3.440	0.08
140	9.282	33.824	9.267	26.155	187.8	3.631	0.08
150	9.125	33.853	9.108	26.203	183.4	3.816	0.08
175	9.147	33.954	9.128	26.279	176.7	4.266	0.08
200	9.042	33.965	9.021	26.304	174.8	4.707	0.08
225	8.670	34.028	8.646	26.413	164.9	5.131	0.08
250	8.409	34.038	8.384	26.461	160.6	5.539	0.08
275	8.259	34.063	8.231	26.503	157.0	5.936	0.08
300	8.043	34.072	8.013	26.544	153.5	6.324	0.07
350	7.637	34.103	7.602	26.628	146.1	7.071	0.08
400	7.239	34.119	7.201	26.697	140.1	7.788	0.07
450	6.904	34.147	6.862	26.766	134.1	8.473	0.08
500	6.488	34.162	6.443	26.834	128.0	9.128	0.08
505	6.390	34.158	6.345	26.843	127.1	9.192	0.08



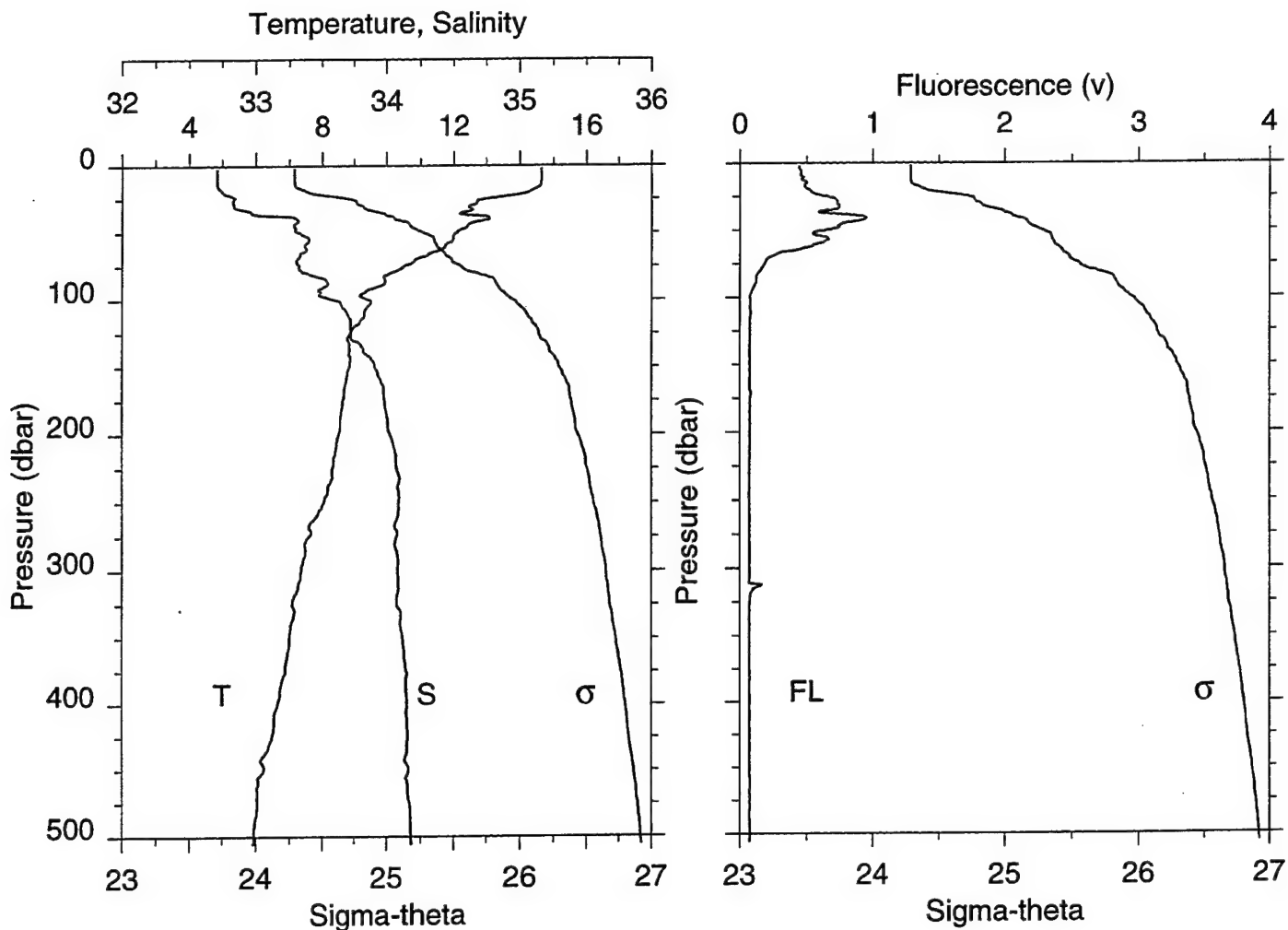
STA NO 49 LAT: 37 31.0 N LONG: 124 30.5 W
 18 SEP 1993 30 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.255	32.881	15.255	24.284	363.0	0.073	0.36
10	15.226	32.882	15.225	24.292	362.5	0.363	0.37
20	14.968	32.879	14.965	24.345	357.7	0.723	0.40
30	14.835	32.881	14.830	24.376	355.1	1.080	0.46
40	12.172	33.003	12.167	25.008	295.0	1.415	0.52
50	11.190	33.094	11.184	25.260	271.2	1.698	0.33
60	10.889	33.159	10.882	25.364	261.5	1.964	0.25
70	10.137	33.289	10.129	25.594	239.7	2.215	0.16
80	10.159	33.467	10.150	25.730	227.1	2.448	0.13
90	9.992	33.554	9.981	25.827	218.1	2.670	0.11
100	9.651	33.593	9.640	25.914	210.0	2.883	0.09
110	9.423	33.639	9.411	25.987	203.2	3.090	0.08
120	9.336	33.678	9.323	26.031	199.1	3.291	0.08
130	9.174	33.754	9.160	26.117	191.2	3.487	0.08
140	9.081	33.800	9.066	26.169	186.5	3.675	0.08
150	9.024	33.831	9.008	26.202	183.5	3.860	0.08
175	8.876	33.912	8.857	26.289	175.7	4.309	0.08
200	8.702	33.984	8.681	26.373	168.2	4.739	0.08
225	8.520	34.032	8.497	26.439	162.3	5.152	0.08
250	8.599	34.093	8.573	26.475	159.4	5.554	0.08
275	8.115	34.057	8.087	26.521	155.3	5.948	0.07
300	7.920	34.088	7.890	26.574	150.6	6.329	0.08
350	7.524	34.129	7.490	26.664	142.6	7.065	0.08
400	7.013	34.139	6.976	26.744	135.5	7.760	0.08
450	6.494	34.155	6.453	26.827	127.9	8.421	0.08
500	6.242	34.190	6.198	26.888	122.7	9.050	0.08
505	6.152	34.187	6.107	26.897	121.8	9.111	0.08



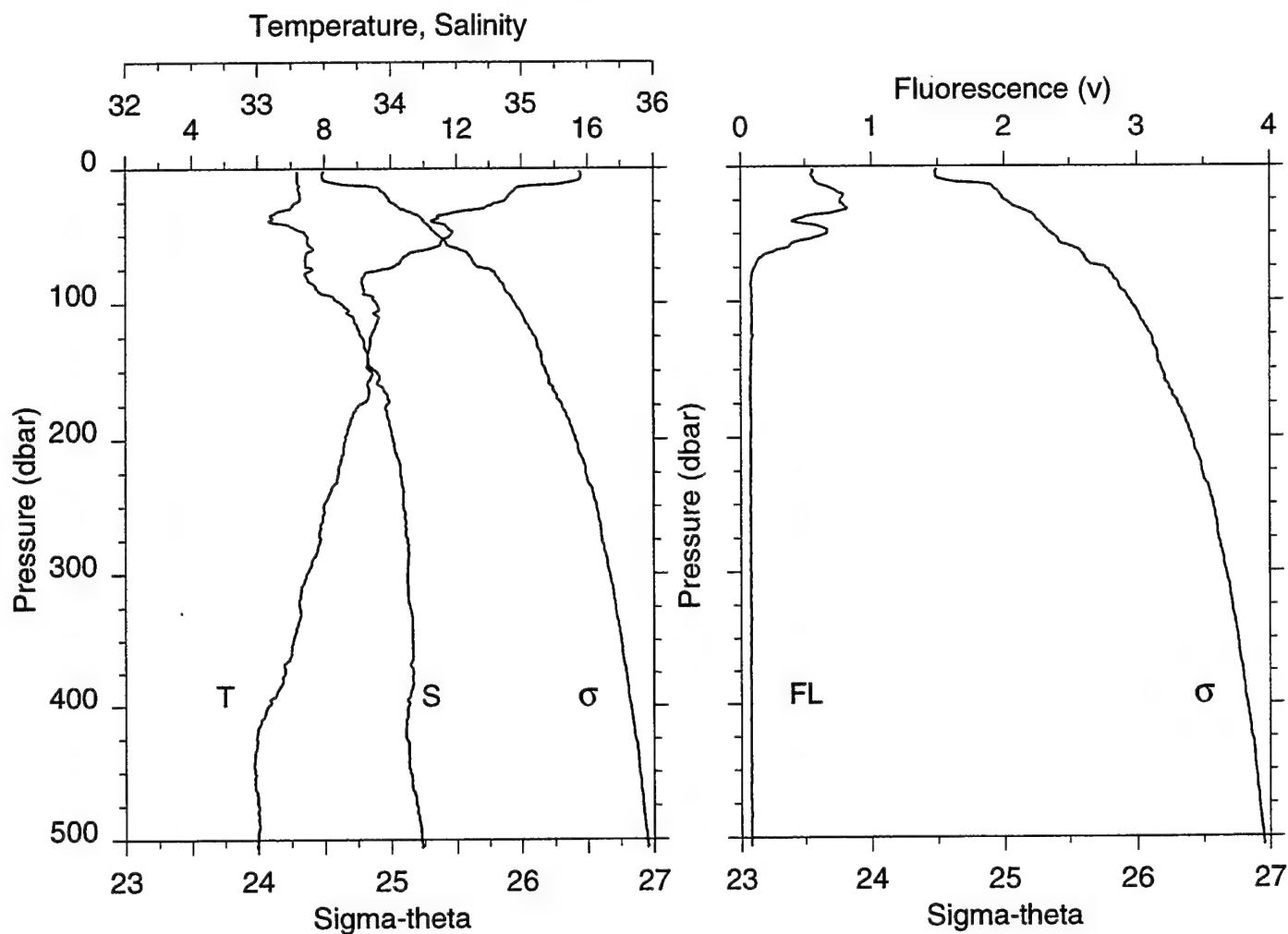
STANO 50 LAT: 37 26.4 N LONG: 124 26.0 W
 18 SEP 1993 313 GMT DEPTH 4300

P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.448	32.855	15.448	24.222	369.0	0.074	0.37
10	15.429	32.892	15.427	24.255	366.0	0.367	0.37
20	14.741	32.869	14.738	24.386	353.8	0.725	0.46
30	13.970	32.907	13.966	24.578	335.8	1.073	0.68
40	12.406	32.982	12.401	24.947	300.8	1.392	0.58
50	12.326	33.216	12.319	25.144	282.3	1.685	0.50
60	11.165	33.320	11.158	25.440	254.4	1.950	0.31
70	10.548	33.424	10.540	25.630	236.4	2.196	0.22
80	10.039	33.514	10.030	25.787	221.7	2.424	0.13
90	9.673	33.580	9.663	25.900	211.1	2.640	0.10
100	9.505	33.660	9.494	25.990	202.7	2.847	0.08
110	9.309	33.716	9.297	26.066	195.7	3.046	0.08
120	9.168	33.770	9.155	26.131	189.7	3.238	0.08
130	9.125	33.809	9.111	26.169	186.3	3.426	0.08
140	9.088	33.849	9.073	26.205	183.0	3.611	0.08
150	9.049	33.882	9.033	26.238	180.1	3.792	0.07
175	8.897	33.915	8.878	26.288	175.8	4.237	0.08
200	8.746	33.974	8.725	26.358	169.5	4.669	0.08
225	8.234	34.012	8.212	26.467	159.6	5.081	0.08
250	8.196	34.045	8.170	26.499	156.9	5.477	0.07
275	8.059	34.076	8.032	26.544	153.1	5.865	0.08
300	7.776	34.099	7.747	26.604	147.6	6.240	0.08
350	7.355	34.153	7.321	26.707	138.5	6.954	0.08
400	6.676	34.119	6.640	26.774	132.3	7.629	0.08
450	6.320	34.151	6.280	26.846	125.9	8.274	0.07
500	5.935	34.169	5.892	26.910	120.2	8.888	0.08
506	5.895	34.169	5.851	26.914	119.8	8.960	0.07



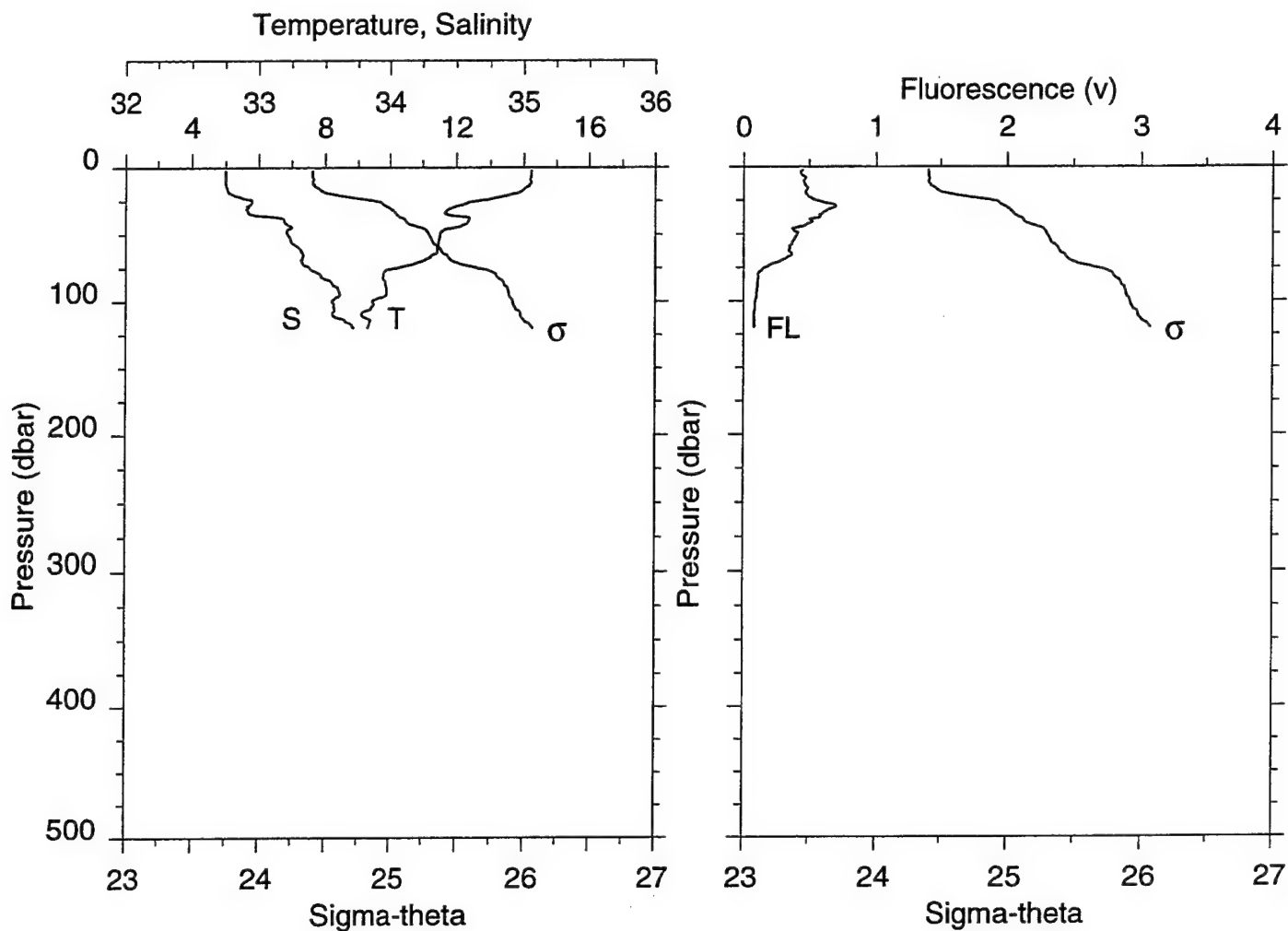
STAN NO 51 LAT: 37 21.8 N LONG: 124 20.1 W
18 SEP 1993 649 GMT DEPTH 4000

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.640	32.711	14.640	24.285	362.9	0.073	0.44
10	14.639	32.710	14.638	24.286	363.1	0.363	0.46
20	14.275	32.756	14.272	24.398	352.7	0.723	0.52
30	12.510	32.838	12.506	24.815	313.1	1.051	0.73
40	13.104	33.309	13.098	25.064	289.8	1.352	0.93
50	12.107	33.331	12.101	25.274	269.9	1.631	0.65
60	11.730	33.364	11.723	25.371	261.0	1.895	0.58
70	10.847	33.305	10.839	25.485	250.2	2.151	0.22
80	10.093	33.387	10.084	25.679	231.9	2.394	0.16
90	9.717	33.513	9.707	25.840	216.8	2.616	0.12
100	9.478	33.602	9.467	25.949	206.6	2.828	0.08
110	9.308	33.694	9.296	26.048	197.3	3.029	0.08
120	8.983	33.719	8.970	26.120	190.7	3.224	0.08
130	8.800	33.740	8.786	26.165	186.5	3.412	0.08
140	8.838	33.837	8.823	26.236	180.0	3.595	0.08
150	8.848	33.910	8.832	26.291	175.0	3.772	0.08
175	8.637	33.987	8.619	26.385	166.5	4.196	0.08
200	8.510	34.027	8.489	26.436	162.1	4.607	0.08
225	8.315	34.078	8.292	26.506	155.9	5.003	0.07
250	8.054	34.092	8.029	26.556	151.4	5.387	0.08
275	7.589	34.076	7.562	26.612	146.3	5.758	0.07
300	7.356	34.085	7.328	26.653	142.7	6.120	0.08
350	7.000	34.121	6.968	26.731	135.9	6.818	0.07
400	6.655	34.152	6.618	26.803	129.6	7.482	0.08
450	6.239	34.162	6.199	26.865	124.0	8.117	0.07
500	5.939	34.179	5.896	26.918	119.5	8.724	0.08
506	5.909	34.184	5.865	26.925	118.8	8.795	0.08



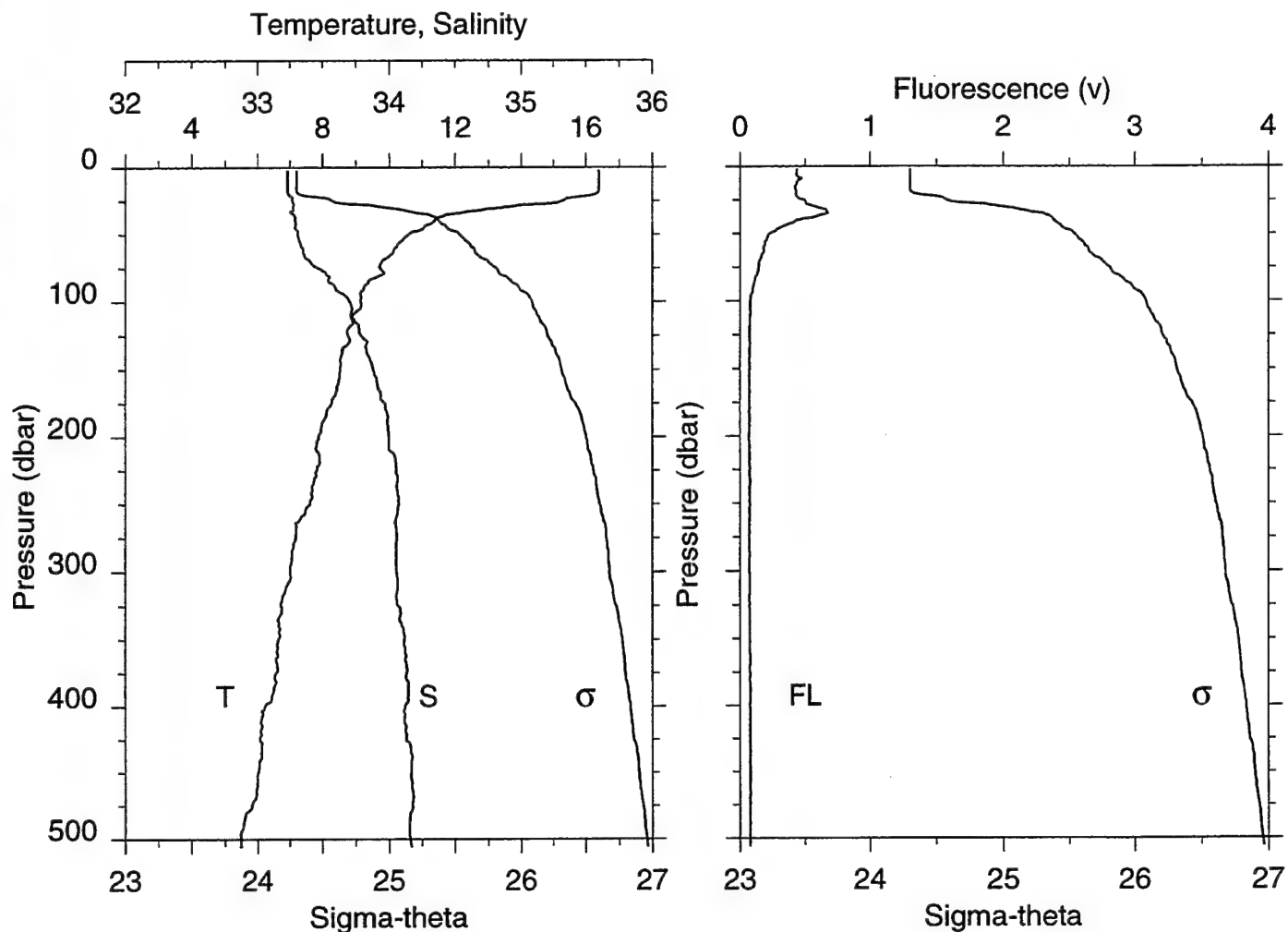
STANO 52 LAT: 37 18.0 N LONG: 124 14.6 W
18 SEP 1993 944 GMT DEPTH 4025

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.756	33.295	15.755	24.492	343.2	0.069	0.55
10	15.545	33.297	15.543	24.541	338.8	0.343	0.57
20	13.610	33.315	13.607	24.966	298.5	0.654	0.77
30	12.799	33.243	12.795	25.072	288.7	0.948	0.80
40	11.269	33.101	11.264	25.250	271.9	1.226	0.42
50	11.787	33.366	11.781	25.362	261.6	1.493	0.66
60	11.158	33.414	11.151	25.514	247.3	1.749	0.37
70	10.267	33.357	10.258	25.626	236.8	1.989	0.13
80	9.187	33.357	9.178	25.804	219.9	2.216	0.09
90	9.197	33.445	9.188	25.871	213.7	2.432	0.08
100	9.569	33.624	9.558	25.952	206.4	2.642	0.08
110	9.630	33.716	9.618	26.013	200.8	2.845	0.08
120	9.480	33.760	9.467	26.073	195.3	3.044	0.08
130	9.382	33.799	9.368	26.119	191.0	3.236	0.08
140	9.304	33.827	9.289	26.154	187.9	3.426	0.08
150	9.417	33.890	9.400	26.185	185.2	3.613	0.08
175	9.025	33.964	9.006	26.306	174.1	4.063	0.08
200	8.634	34.015	8.613	26.408	164.8	4.486	0.08
225	8.417	34.069	8.393	26.484	158.0	4.888	0.08
250	7.969	34.093	7.944	26.570	150.1	5.273	0.08
275	7.867	34.125	7.839	26.610	146.7	5.643	0.08
300	7.456	34.123	7.427	26.669	141.3	6.003	0.08
350	7.054	34.163	7.021	26.757	133.5	6.690	0.08
400	6.304	34.128	6.269	26.829	126.8	7.342	0.08
450	5.903	34.143	5.864	26.892	121.1	7.960	0.08
500	6.003	34.226	5.960	26.946	116.9	8.555	0.08
505	5.991	34.229	5.947	26.950	116.5	8.614	0.08



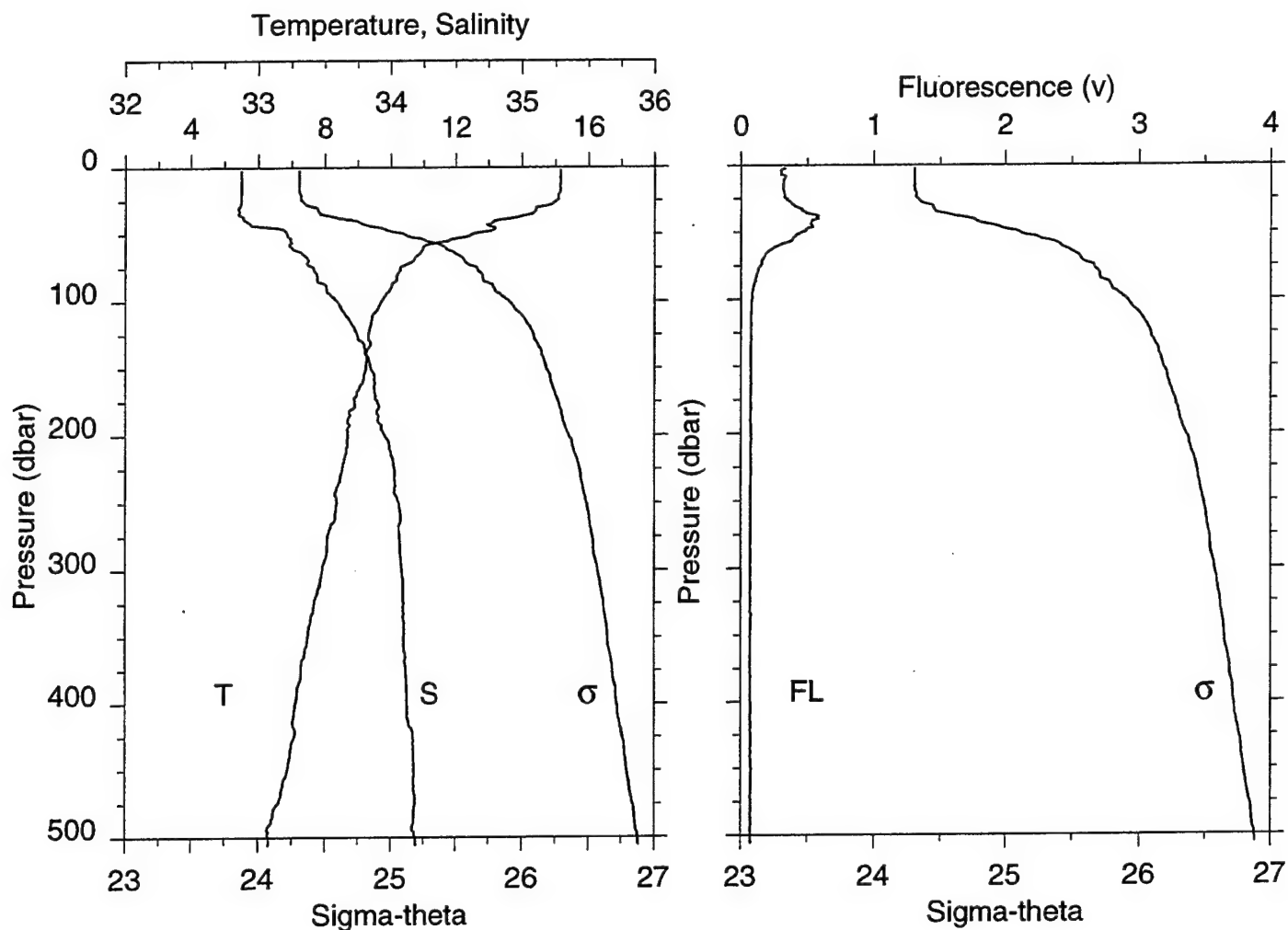
STA NO 53 LAT: 37 21.9 N LONG: 124 20.0 W
18 SEP 1993 1237 GMT DEPTH 4300

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.223	32.749	14.223	24.403	351.7	0.070	0.45
10	14.207	32.749	14.205	24.406	351.6	0.352	0.46
20	13.639	32.802	13.636	24.564	336.8	0.699	0.47
30	11.898	32.919	11.895	24.993	296.1	1.011	0.70
40	12.343	33.190	12.338	25.120	284.4	1.301	0.51
50	11.521	33.217	11.515	25.295	267.9	1.576	0.40
60	11.442	33.307	11.435	25.379	260.1	1.841	0.35
70	10.958	33.326	10.950	25.481	250.6	2.097	0.28
80	9.781	33.463	9.772	25.791	221.3	2.331	0.11
90	9.876	33.594	9.866	25.877	213.3	2.548	0.10
100	9.436	33.551	9.425	25.916	209.7	2.760	0.09
110	9.101	33.556	9.089	25.974	204.3	2.967	0.08
120	9.285	33.718	9.272	26.071	195.3	3.167	0.08



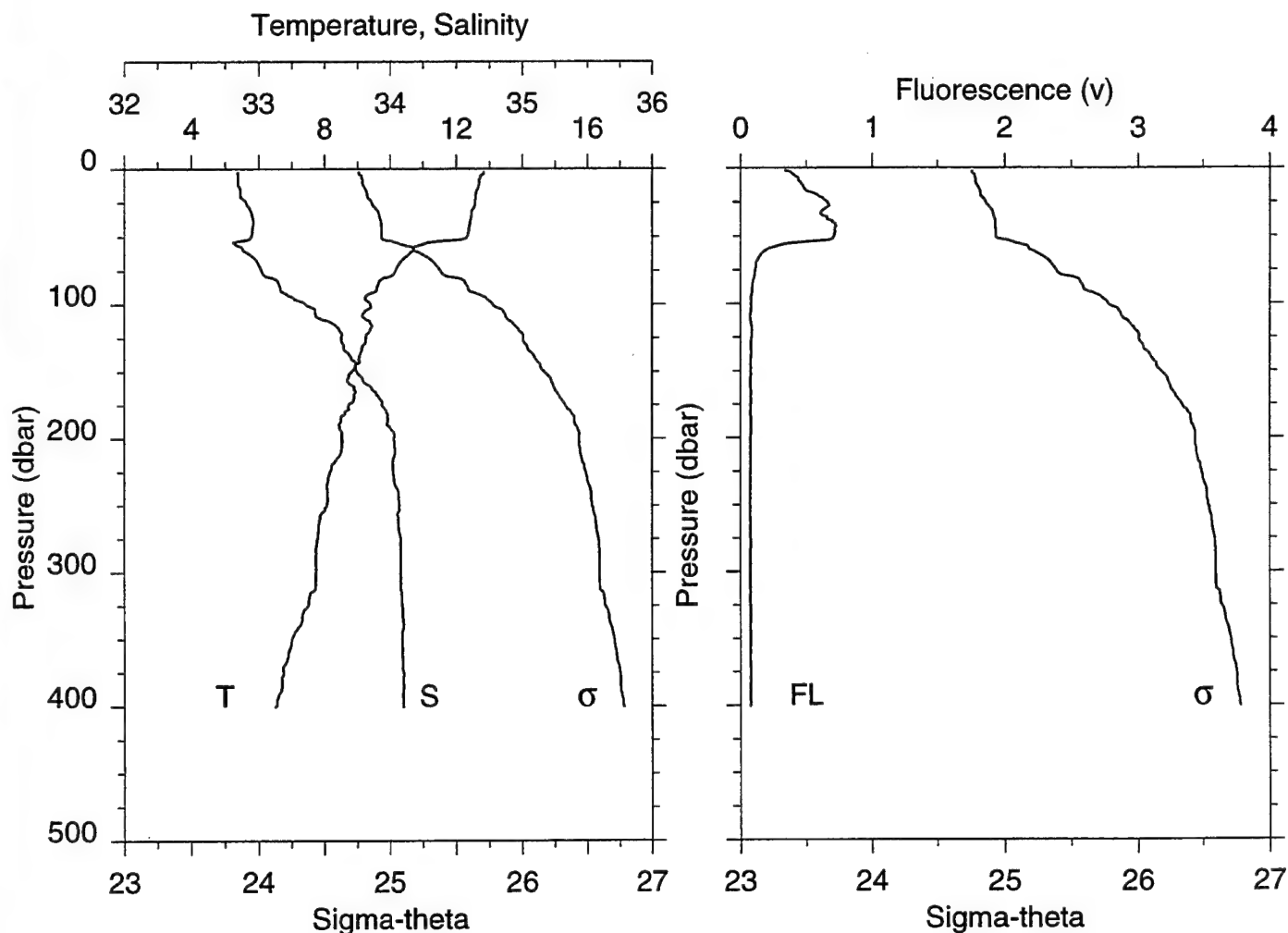
STA NO 54 LAT: 37 12.1 N LONG: 124 8.2 W
 18 SEP 1993 1422 GMT DEPTH 3900

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	16.384	33.233	16.384	24.302	361.3	0.072	0.44
10	16.387	33.233	16.385	24.302	361.6	0.361	0.45
20	16.282	33.240	16.279	24.332	359.1	0.723	0.43
30	13.380	33.279	13.376	24.985	297.0	1.054	0.58
40	11.365	33.293	11.360	25.382	259.4	1.326	0.43
50	10.566	33.313	10.560	25.539	244.6	1.579	0.22
60	10.164	33.354	10.157	25.641	235.1	1.819	0.18
70	9.772	33.408	9.764	25.749	225.0	2.051	0.15
80	9.738	33.533	9.729	25.852	215.4	2.271	0.13
90	9.236	33.601	9.226	25.987	202.7	2.479	0.10
100	9.144	33.707	9.134	26.085	193.6	2.676	0.08
110	8.896	33.712	8.884	26.128	189.7	2.868	0.08
120	8.767	33.772	8.755	26.195	183.5	3.054	0.07
130	8.789	33.832	8.776	26.239	179.5	3.236	0.07
140	8.557	33.846	8.542	26.286	175.1	3.414	0.08
150	8.536	33.880	8.521	26.316	172.5	3.587	0.07
175	8.274	33.969	8.257	26.426	162.5	4.008	0.07
200	7.889	33.995	7.869	26.504	155.4	4.404	0.07
225	7.830	34.053	7.808	26.558	150.7	4.787	0.07
250	7.629	34.072	7.605	26.603	146.8	5.158	0.07
275	7.184	34.055	7.158	26.653	142.2	5.518	0.07
300	7.015	34.055	6.987	26.677	140.2	5.871	0.07
350	6.643	34.113	6.611	26.773	131.6	6.550	0.07
400	6.226	34.121	6.191	26.834	126.3	7.197	0.08
450	6.017	34.169	5.978	26.899	120.6	7.814	0.08
500	5.485	34.162	5.444	26.959	115.0	8.403	0.08
506	5.480	34.169	5.438	26.965	114.5	8.472	0.08



STAN 55 LAT: 37 34.0 N LONG: 125 5.1 W
 19 SEP 1993 1206 GMT DEPTH 4200

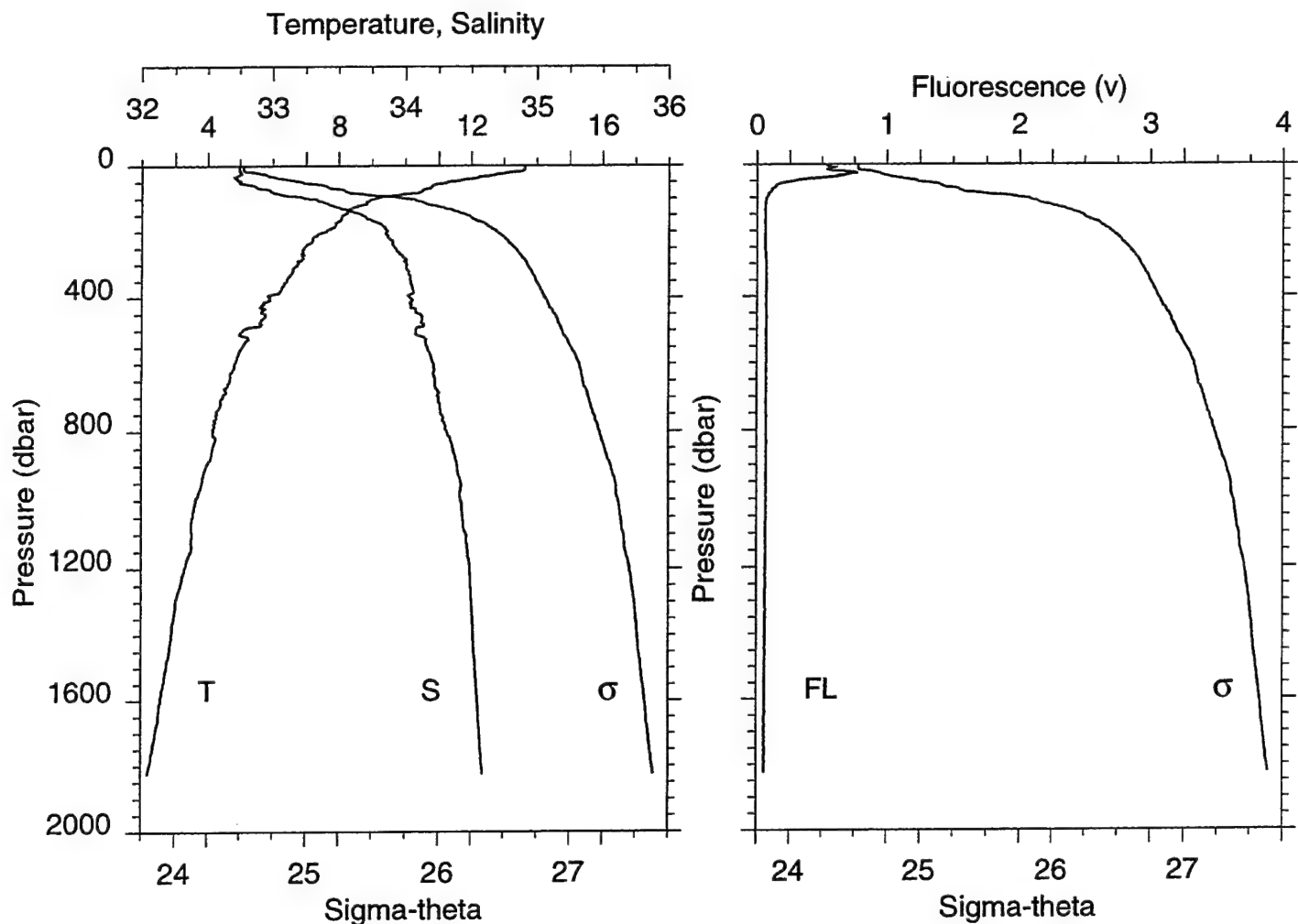
P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	15.144	32.876	15.144	24.305	361.0	0.072	0.34
10	15.146	32.876	15.144	24.305	361.3	0.361	0.33
20	15.105	32.876	15.102	24.314	360.7	0.722	0.32
30	14.439	32.853	14.435	24.439	349.1	1.081	0.40
40	13.194	32.914	13.188	24.740	320.6	1.422	0.58
50	12.499	33.214	12.492	25.109	285.7	1.726	0.45
60	10.974	33.251	10.966	25.420	256.2	1.996	0.28
70	10.649	33.370	10.641	25.570	242.1	2.244	0.17
80	10.183	33.439	10.174	25.704	229.5	2.479	0.13
90	9.992	33.509	9.982	25.791	221.4	2.705	0.10
100	9.707	33.593	9.696	25.904	210.9	2.922	0.09
110	9.439	33.657	9.427	25.998	202.1	3.129	0.08
120	9.353	33.722	9.340	26.064	196.1	3.327	0.08
130	9.371	33.781	9.357	26.107	192.2	3.522	0.08
140	9.265	33.809	9.250	26.146	188.7	3.712	0.08
150	9.239	33.848	9.223	26.181	185.6	3.899	0.08
175	8.903	33.898	8.884	26.273	177.2	4.352	0.08
200	8.691	33.955	8.670	26.352	170.2	4.787	0.08
225	8.524	34.028	8.500	26.435	162.6	5.202	0.08
250	8.366	34.063	8.340	26.487	158.1	5.604	0.07
275	8.084	34.066	8.057	26.532	154.2	5.994	0.08
300	7.922	34.085	7.892	26.572	150.8	6.377	0.08
350	7.485	34.101	7.451	26.647	144.2	7.112	0.07
400	7.112	34.124	7.074	26.718	138.0	7.816	0.08
450	6.872	34.178	6.830	26.795	131.4	8.489	0.08
500	6.305	34.186	6.260	26.876	123.8	9.127	0.08
501	6.315	34.188	6.270	26.877	123.7	9.139	0.08



STA NO 56 LAT: 38 42.6 N LONG: 123 50.0 W
19 SEP 1993 2210 GMT DEPTH 455

P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	12.818	32.847	12.818	24.762	317.5	0.063	0.33
10	12.699	32.846	12.698	24.784	315.6	0.317	0.44
20	12.580	32.865	12.577	24.823	312.2	0.630	0.58
30	12.483	32.937	12.479	24.897	305.4	0.939	0.64
40	12.402	32.959	12.397	24.929	302.5	1.243	0.70
50	12.310	32.941	12.304	24.933	302.4	1.545	0.71
60	10.702	32.886	10.695	25.183	278.6	1.834	0.19
70	10.274	33.000	10.266	25.346	263.3	2.104	0.12
80	9.831	33.106	9.822	25.503	248.6	2.363	0.10
90	9.566	33.172	9.556	25.598	239.7	2.605	0.09
100	9.396	33.363	9.385	25.775	223.0	2.834	0.08
110	9.214	33.460	9.202	25.881	213.2	3.051	0.07
120	9.370	33.620	9.357	25.981	203.9	3.259	0.09
130	9.182	33.645	9.168	26.031	199.4	3.461	0.08
140	9.052	33.703	9.037	26.097	193.2	3.657	0.08
150	8.810	33.746	8.794	26.169	186.6	3.847	0.08
175	8.738	33.936	8.720	26.330	171.8	4.294	0.08
200	8.529	34.032	8.508	26.438	162.0	4.707	0.08
225	8.167	34.025	8.144	26.487	157.6	5.109	0.07
250	8.070	34.071	8.045	26.538	153.2	5.496	0.07
275	7.793	34.083	7.766	26.588	148.7	5.873	0.07
300	7.747	34.083	7.718	26.596	148.4	6.244	0.08
350	7.006	34.093	6.974	26.708	138.1	6.963	0.08
400	6.518	34.104	6.482	26.783	131.3	7.637	0.08
401	6.505	34.104	6.469	26.784	131.2	7.650	0.07

data from secondary t/c sensors

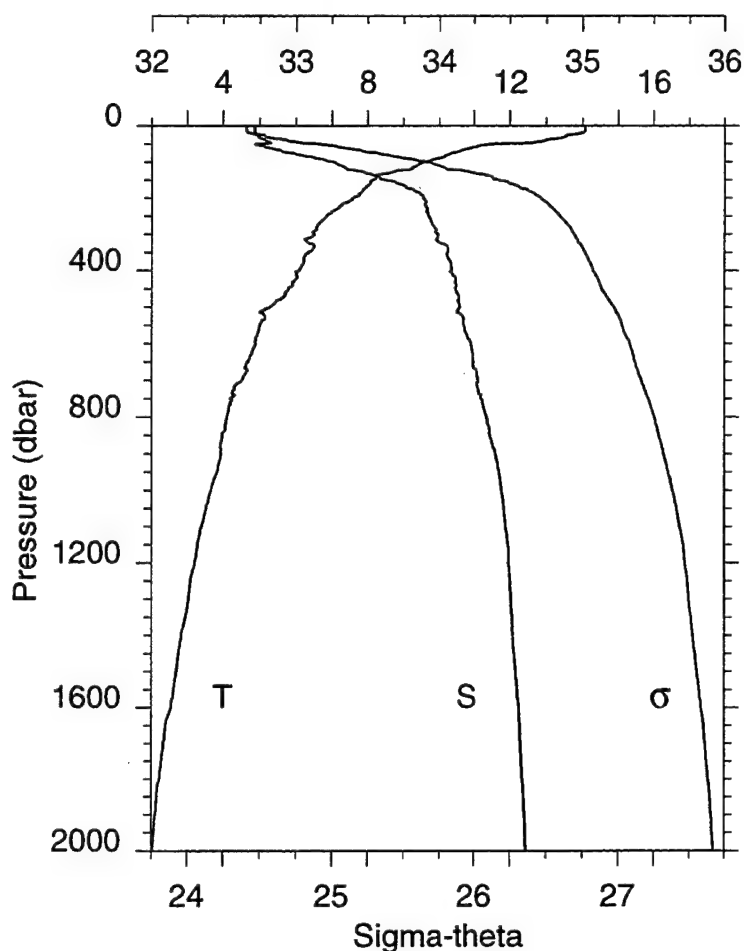


STA NO 57 LAT: 38 38.0 N LONG: 123 57.0 W
20 SEP 1993 122 GMT DEPTH 1925

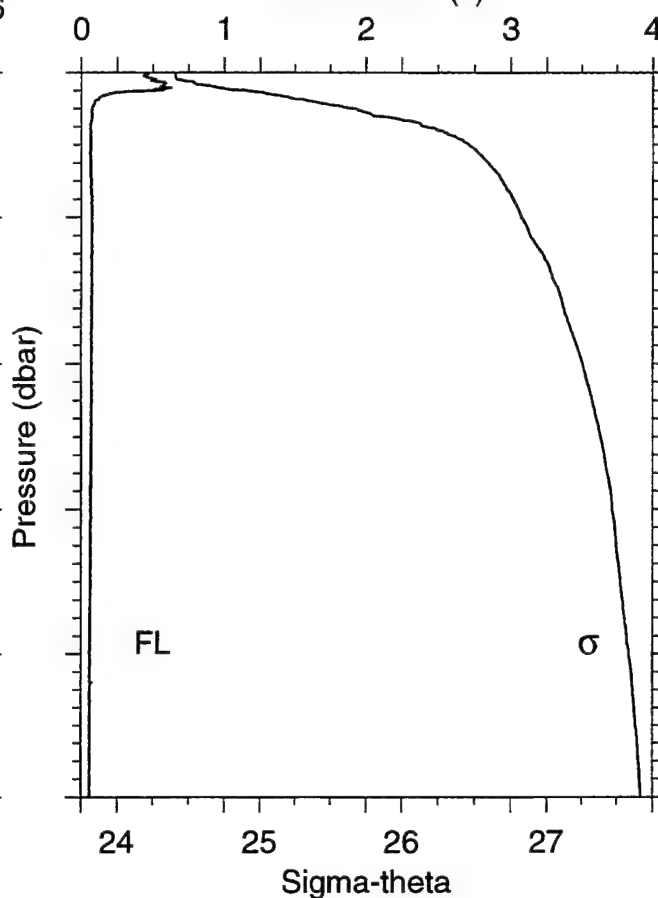
P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	13.608	32.747	13.608	24.527	339.9	0.102	0.55	300	6.742	34.009	6.715	26.677	140.0	6.307	0.07
10	13.618	32.746	13.616	24.525	340.3	0.340	0.60	350	6.414	34.037	6.383	26.743	134.3	6.991	0.07
20	13.240	32.756	13.237	24.609	332.6	0.679	0.61	400	5.908	34.034	5.874	26.806	128.6	7.647	0.07
30	12.650	32.737	12.646	24.710	323.2	1.006	0.72	450	5.773	34.112	5.735	26.884	121.8	8.273	0.07
40	12.012	32.735	12.007	24.830	312.0	1.324	0.54	500	5.084	34.077	5.044	26.939	116.4	8.869	0.07
50	11.259	32.746	11.253	24.976	298.2	1.629	0.29	600	4.839	34.213	4.791	27.075	104.5	9.973	0.08
60	10.810	32.860	10.803	25.144	282.4	1.920	0.16	700	4.476	34.251	4.422	27.146	98.3	10.992	0.07
70	10.643	32.929	10.635	25.227	274.7	2.200	0.14	800	4.169	34.315	4.109	27.230	90.9	11.939	0.07
80	10.434	32.999	10.425	25.318	266.3	2.469	0.11	900	3.967	34.393	3.900	27.314	83.5	12.817	0.07
90	9.763	33.092	9.753	25.504	248.7	2.727	0.09	1000	3.637	34.419	3.564	27.368	78.6	13.624	0.07
100	9.064	33.280	9.054	25.764	224.1	2.961	0.08	1100	3.525	34.461	3.445	27.413	74.9	14.390	0.07
110	8.830	33.379	8.818	25.877	213.4	3.178	0.07	1200	3.301	34.491	3.215	27.459	70.8	15.123	0.07
120	8.627	33.442	8.615	25.958	205.9	3.389	0.07	1300	3.026	34.505	2.934	27.496	67.2	15.813	0.07
130	8.390	33.517	8.377	26.053	197.0	3.590	0.06	1400	2.904	34.518	2.805	27.518	65.5	16.476	0.07
140	8.237	33.610	8.223	26.149	188.0	3.782	0.06	1500	2.749	34.533	2.644	27.544	63.1	17.120	0.07
150	8.118	33.678	8.103	26.221	181.4	3.966	0.07	1600	2.584	34.551	2.473	27.574	60.4	17.737	0.07
175	7.898	33.806	7.881	26.354	169.1	4.406	0.06	1700	2.426	34.568	2.309	27.601	57.8	18.328	0.06
200	7.563	33.860	7.544	26.445	160.8	4.818	0.06	1800	2.249	34.587	2.126	27.631	54.8	18.892	0.06
225	7.199	33.896	7.178	26.525	153.5	5.210	0.06	1825	2.191	34.592	2.066	27.640	53.8	19.028	0.06
250	6.932	33.926	6.909	26.585	148.0	5.588	0.07								
275	6.888	33.981	6.863	26.635	143.7	5.952	0.07								

data from secondary t/c sensors

Temperature, Salinity



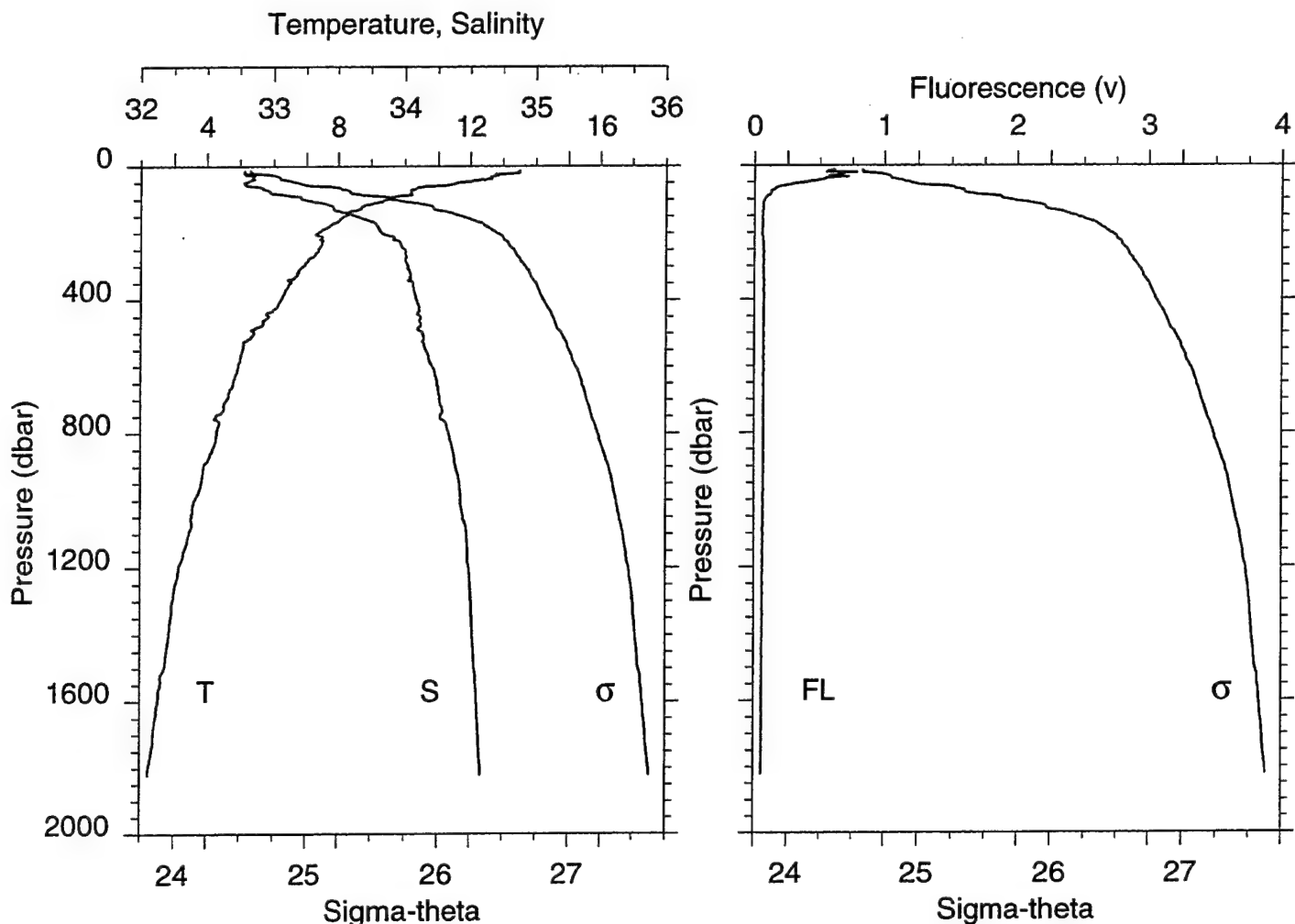
Fluorescence (v)



STA NO 58 LAT: 38 33.2 N LONG: 124 4.1 W
20 SEP 1993 528 GMT DEPTH 2400

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
2	14.071	32.713	14.071	24.407	351.3	0.070	0.49	300	6.504	33.989	6.477	26.693	138.3	6.410	0.07
10	14.071	32.714	14.070	24.407	351.5	0.351	0.44	350	6.332	34.055	6.301	26.768	131.9	7.085	0.07
20	13.968	32.720	13.965	24.434	349.3	0.702	0.51	400	6.095	34.083	6.060	26.820	127.4	7.732	0.07
30	13.530	32.741	13.525	24.539	339.5	1.045	0.58	450	5.777	34.113	5.739	26.885	121.7	8.352	0.07
40	12.984	32.788	12.978	24.685	325.8	1.378	0.56	500	5.283	34.145	5.242	26.969	113.8	8.941	0.07
50	11.539	32.732	11.533	24.915	304.0	1.696	0.49	600	4.881	34.228	4.833	27.082	103.8	10.028	0.08
60	10.957	32.809	10.949	25.079	288.6	1.991	0.19	700	4.513	34.279	4.459	27.164	96.6	11.033	0.07
70	10.577	32.904	10.569	25.219	275.4	2.273	0.12	800	4.114	34.340	4.054	27.256	88.3	11.955	0.07
80	10.224	33.023	10.215	25.373	261.0	2.541	0.09	900	3.944	34.401	3.877	27.323	82.6	12.809	0.07
90	9.940	33.150	9.929	25.520	247.2	2.795	0.08	1000	3.666	34.442	3.593	27.383	77.2	13.608	0.07
100	9.561	33.263	9.550	25.670	233.0	3.036	0.07	1100	3.407	34.470	3.328	27.431	72.9	14.357	0.07
110	9.348	33.316	9.336	25.747	225.9	3.265	0.07	1200	3.219	34.493	3.134	27.468	69.7	15.065	0.07
120	9.196	33.360	9.183	25.806	220.5	3.488	0.08	1300	3.049	34.508	2.957	27.497	67.2	15.747	0.06
130	8.618	33.489	8.605	25.997	202.4	3.698	0.07	1400	2.842	34.522	2.745	27.526	64.5	16.406	0.07
140	8.218	33.571	8.204	26.122	190.6	3.894	0.07	1500	2.701	34.542	2.596	27.555	61.9	17.038	0.06
150	8.151	33.620	8.136	26.170	186.2	4.083	0.06	1600	2.551	34.562	2.440	27.585	59.2	17.643	0.06
175	7.876	33.812	7.859	26.362	168.4	4.525	0.06	1700	2.334	34.575	2.218	27.613	56.2	18.218	0.06
200	7.588	33.885	7.569	26.461	159.3	4.934	0.06	1800	2.225	34.587	2.102	27.633	54.5	18.772	0.06
225	7.201	33.909	7.180	26.535	152.6	5.323	0.06	1900	2.109	34.601	1.979	27.654	52.5	19.305	0.06
250	6.852	33.922	6.829	26.593	147.3	5.698	0.07	2000	2.019	34.609	1.882	27.668	51.2	19.823	0.06
275	6.603	33.953	6.578	26.651	142.0	6.060	0.07								

data from secondary t/c sensors

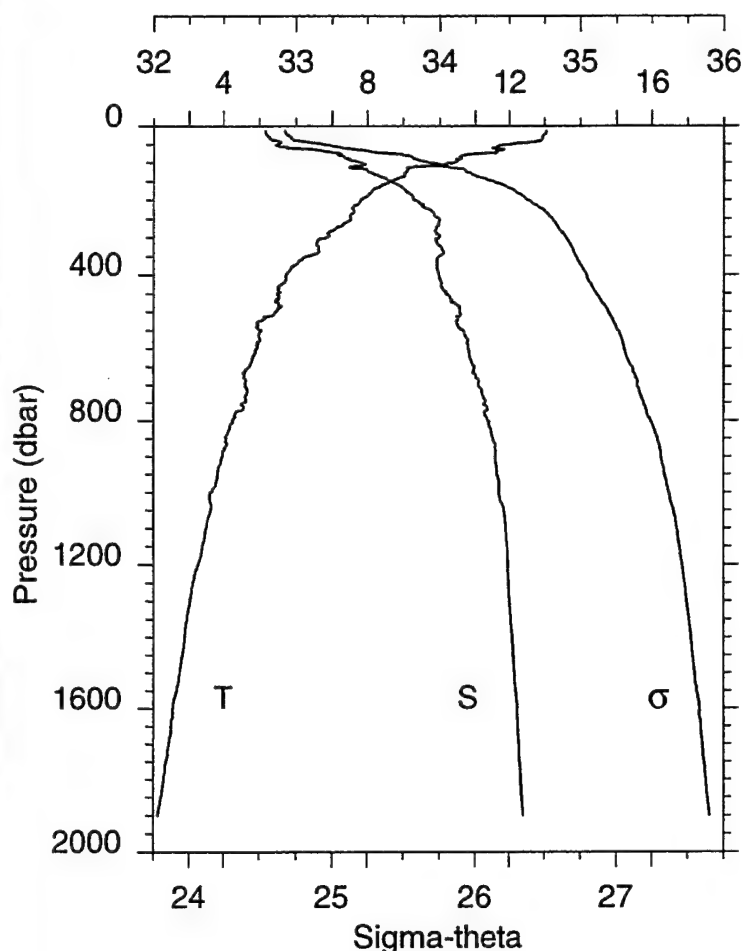


STANO 59 LAT: 38 44.5 N LONG: 124 2.1 W
20 SEP 1993 1008 GMT DEPTH 1950

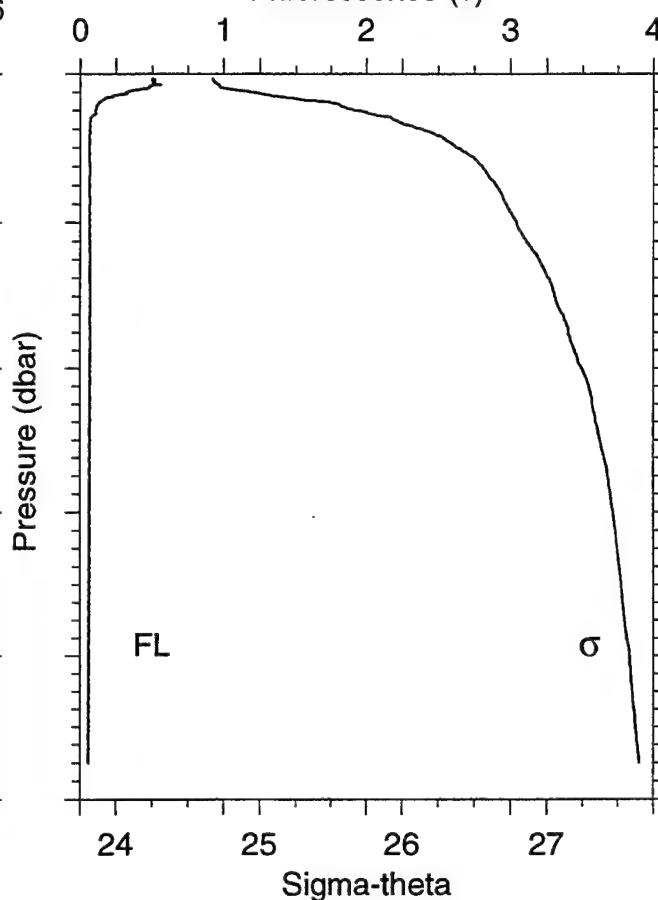
P	T	S	POTT	SIGMA	SVA	DYN HT	FL	P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
13	13.496	32.782	13.494	24.578	335.4	0.436	0.60	300	6.887	34.022	6.859	26.668	141.0	6.318	0.07
20	13.450	32.780	13.447	24.586	334.8	0.671	0.55	350	6.515	34.060	6.484	26.748	133.9	7.005	0.07
30	12.765	32.852	12.761	24.777	316.8	0.995	0.60	400	6.227	34.087	6.192	26.807	128.8	7.662	0.07
40	12.503	32.849	12.498	24.825	312.4	1.310	0.54	450	5.845	34.115	5.807	26.878	122.4	8.289	0.07
50	11.629	32.781	11.623	24.937	302.0	1.617	0.40	500	5.412	34.132	5.371	26.944	116.3	8.888	0.07
60	10.850	32.839	10.843	25.121	284.6	1.914	0.24	600	4.955	34.206	4.907	27.057	106.3	9.999	0.07
70	10.239	32.936	10.231	25.302	267.5	2.187	0.16	700	4.610	34.264	4.556	27.142	98.9	11.020	0.07
80	10.178	32.977	10.169	25.345	263.6	2.452	0.13	800	4.317	34.333	4.256	27.229	91.2	11.970	0.07
90	9.776	33.169	9.766	25.561	243.2	2.708	0.10	900	3.911	34.391	3.844	27.318	83.0	12.844	0.07
100	9.420	33.247	9.409	25.681	232.0	2.945	0.08	1000	3.629	34.427	3.557	27.375	77.9	13.649	0.07
110	9.077	33.379	9.065	25.839	217.1	3.171	0.07	1100	3.468	34.475	3.389	27.430	73.2	14.406	0.07
120	8.721	33.458	8.708	25.956	206.1	3.382	0.07	1200	3.157	34.495	3.072	27.475	68.8	15.119	0.07
130	8.590	33.468	8.576	25.984	203.6	3.587	0.07	1300	2.967	34.510	2.876	27.506	66.1	15.795	0.07
140	8.377	33.590	8.362	26.113	191.5	3.785	0.06	1400	2.862	34.521	2.764	27.524	64.8	16.450	0.07
150	8.159	33.646	8.144	26.190	184.3	3.973	0.06	1500	2.717	34.537	2.613	27.550	62.5	17.086	0.06
175	7.755	33.787	7.758	26.357	168.8	4.413	0.06	1600	2.532	34.554	2.422	27.580	59.6	17.692	0.06
200	7.360	33.831	7.341	26.451	160.2	4.824	0.06	1700	2.404	34.568	2.287	27.603	57.5	18.277	0.06
225	7.485	33.958	7.463	26.533	152.8	5.215	0.07	1800	2.252	34.585	2.128	27.629	55.0	18.842	0.06
250	7.376	34.001	7.352	26.583	148.5	5.592	0.07	1822	2.241	34.586	2.116	27.631	54.8	18.963	0.06
275	7.097	34.004	7.072	26.625	144.8	5.960	0.07								

data from secondary t/c sensors

Temperature, Salinity



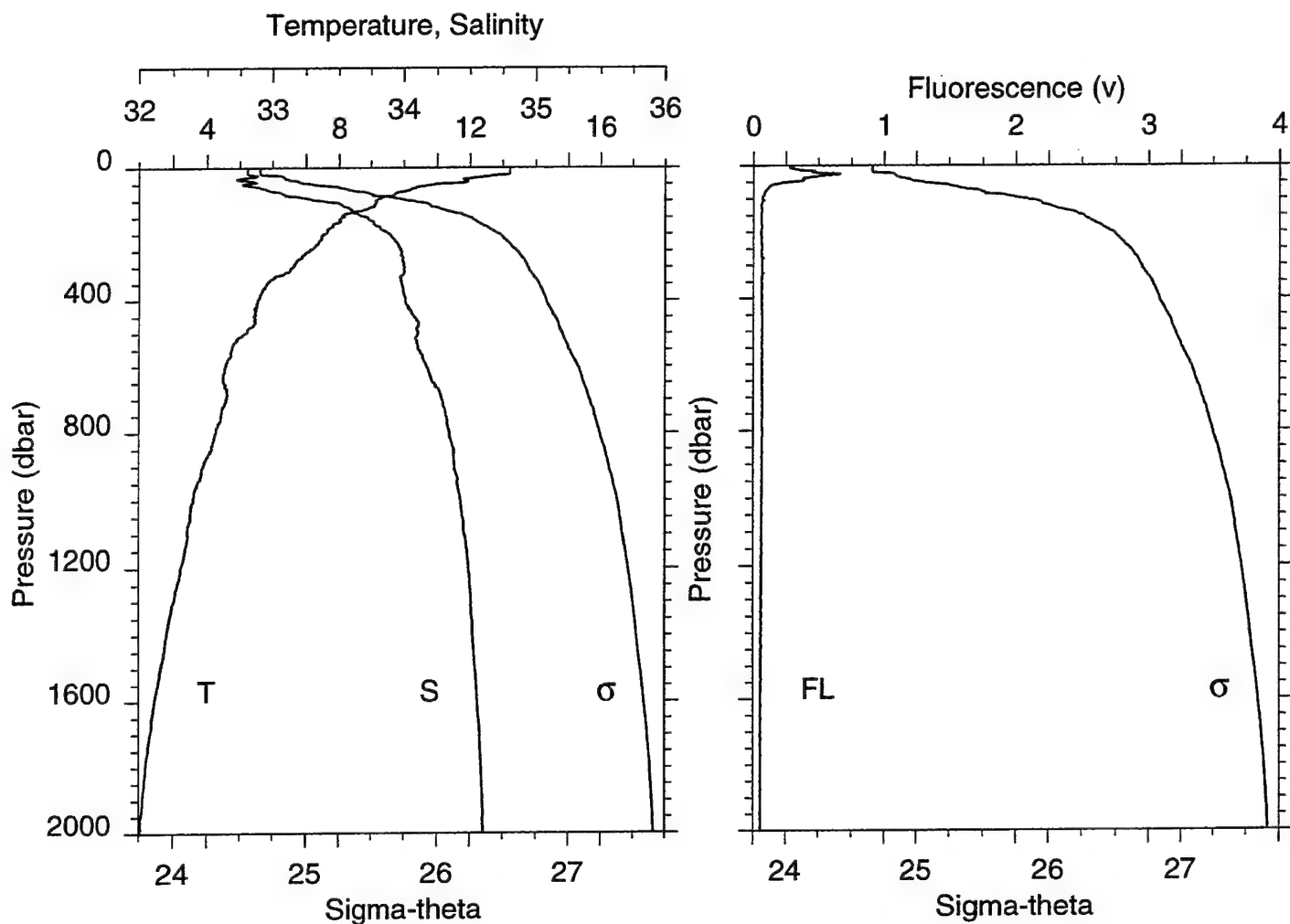
Fluorescence (v)



STANO 60 LAT: 38 33.0 N LONG: 123 52.3 W
20 SEP 1993 1305 GMT DEPTH 2000

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
13	13.040	32.796	13.038	24.679	325.7	0.423	0.50	300	6.828	33.991	6.801	26.651	142.5	6.370	0.07
20	13.036	32.795	13.033	24.679	325.8	0.652	0.51	350	6.340	33.997	6.309	26.721	136.3	7.065	0.07
30	12.947	32.819	12.943	24.715	322.7	0.976	0.56	400	5.736	33.995	5.703	26.795	129.4	7.730	0.07
40	12.885	32.872	12.879	24.769	317.8	1.298	0.47	450	5.504	34.042	5.467	26.861	123.6	8.364	0.07
50	12.047	32.881	12.041	24.936	302.1	1.607	0.32	500	5.454	34.139	5.412	26.944	116.4	8.963	0.07
60	11.499	32.937	11.492	25.081	288.4	1.902	0.23	600	4.940	34.202	4.893	27.055	106.5	10.068	0.07
70	11.589	33.206	11.580	25.274	270.4	2.180	0.16	700	4.636	34.276	4.581	27.148	98.3	11.087	0.07
80	10.687	33.301	10.678	25.510	248.1	2.438	0.13	800	4.273	34.342	4.212	27.241	90.1	12.032	0.07
90	10.584	33.377	10.573	25.587	240.9	2.681	0.12	900	3.979	34.398	3.912	27.317	83.3	12.889	0.07
100	10.398	33.450	10.386	25.676	232.6	2.919	0.11	1000	3.624	34.424	3.551	27.373	78.1	13.698	0.07
110	9.461	33.401	9.449	25.795	221.4	3.145	0.11	1100	3.503	34.475	3.423	27.427	73.6	14.455	0.07
120	9.114	33.498	9.101	25.926	209.0	3.360	0.07	1200	3.268	34.494	3.183	27.464	70.2	15.175	0.06
130	9.023	33.540	9.009	25.973	204.7	3.567	0.07	1300	3.030	34.504	2.938	27.495	67.3	15.862	0.07
140	8.904	33.615	8.889	26.051	197.5	3.769	0.07	1400	2.880	34.523	2.781	27.524	64.8	16.522	0.06
150	8.622	33.669	8.607	26.138	189.5	3.963	0.07	1500	2.737	34.538	2.632	27.550	62.6	17.159	0.06
175	8.140	33.768	8.123	26.288	175.4	4.418	0.07	1600	2.540	34.559	2.430	27.583	59.3	17.769	0.06
200	7.810	33.831	7.791	26.387	166.5	4.846	0.06	1700	2.425	34.570	2.307	27.602	57.6	18.354	0.06
225	7.607	33.928	7.585	26.492	156.8	5.250	0.06	1800	2.280	34.583	2.156	27.625	55.4	18.920	0.06
250	7.535	33.995	7.511	26.556	151.2	5.635	0.07	1900	2.121	34.600	1.991	27.652	52.7	19.461	0.06
275	7.128	33.977	7.103	26.599	147.3	6.008	0.07	1901	2.120	34.600	1.990	27.652	52.7	19.466	0.06

data from secondary t/c sensors

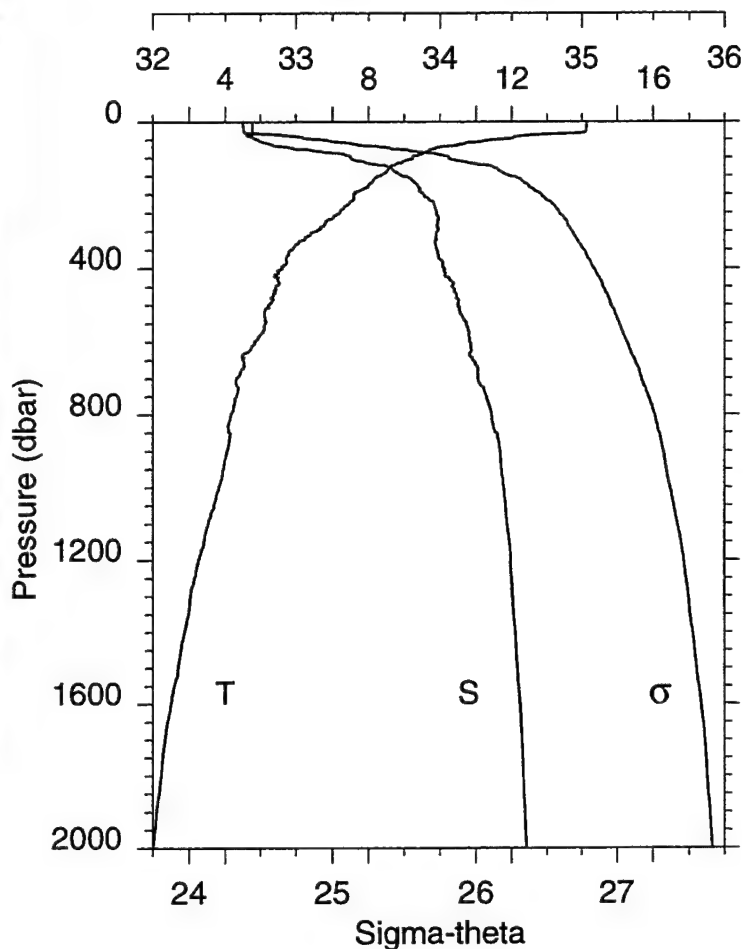


STA NO 61 LAT: 38 28.1 N LONG: 124 12.4 W
20 SEP 1993 1645 GMT DEPTH 3500

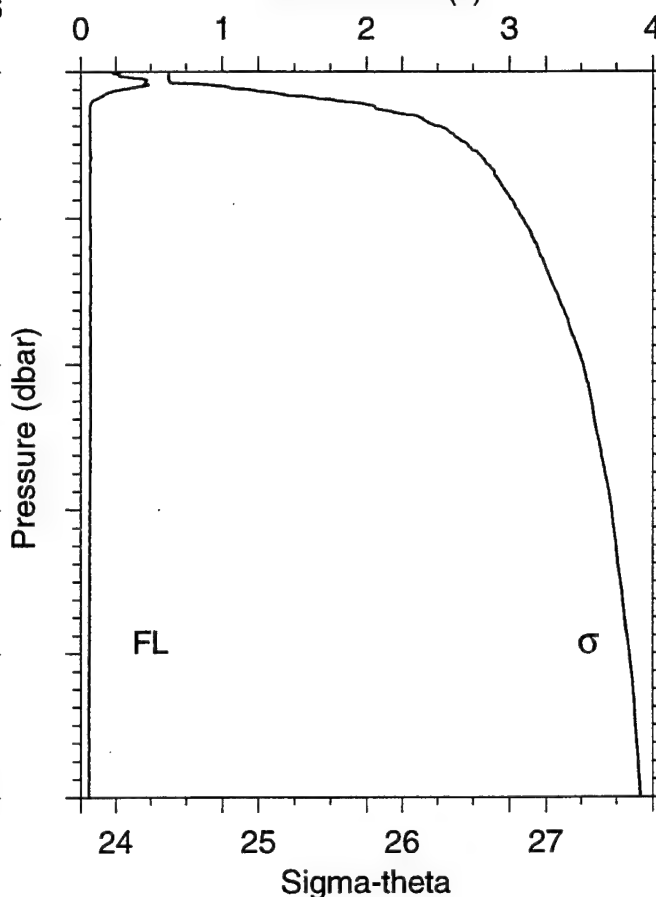
P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	13.200	32.810	13.199	24.658	327.4	0.098	0.30	300	6.607	34.004	6.580	26.691	138.6	6.142	0.07
10	13.212	32.807	13.211	24.654	328.0	0.328	0.31	350	5.826	33.985	5.797	26.776	130.7	6.816	0.07
20	13.192	32.812	13.189	24.661	327.5	0.656	0.45	400	5.549	34.010	5.516	26.830	125.9	7.457	0.07
30	12.278	32.810	12.275	24.837	311.0	0.971	0.54	450	5.444	34.078	5.407	26.897	120.2	8.073	0.07
40	11.933	32.848	11.928	24.932	302.2	1.280	0.40	500	5.163	34.105	5.123	26.952	115.3	8.661	0.07
50	10.935	32.771	10.929	25.053	290.8	1.578	0.26	600	4.565	34.172	4.519	27.072	104.3	9.760	0.07
60	10.373	32.903	10.366	25.254	271.9	1.859	0.14	700	4.580	34.288	4.526	27.164	96.7	10.763	0.07
70	10.081	32.986	10.073	25.368	261.2	2.125	0.11	800	4.266	34.346	4.206	27.244	89.7	11.693	0.07
80	9.712	33.089	9.703	25.510	247.9	2.378	0.09	900	3.893	34.387	3.826	27.317	83.1	12.556	0.07
90	9.321	33.221	9.312	25.676	232.2	2.620	0.09	1000	3.607	34.432	3.534	27.381	77.2	13.357	0.07
100	9.137	33.376	9.127	25.827	218.1	2.846	0.07	1100	3.427	34.458	3.348	27.420	74.0	14.111	0.07
110	9.111	33.515	9.099	25.940	207.5	3.059	0.07	1200	3.234	34.491	3.148	27.465	70.0	14.831	0.07
120	8.958	33.573	8.945	26.009	201.1	3.265	0.06	1300	3.030	34.512	2.939	27.501	66.8	15.515	0.07
130	8.627	33.597	8.614	26.080	194.5	3.463	0.07	1400	2.827	34.524	2.729	27.530	64.1	16.168	0.06
140	8.168	33.652	8.154	26.193	183.9	3.652	0.07	1500	2.656	34.542	2.552	27.560	61.3	16.796	0.06
150	8.073	33.722	8.058	26.262	177.5	3.833	0.06	1600	2.480	34.560	2.370	27.589	58.5	17.394	0.06
175	7.808	33.798	7.791	26.361	168.5	4.266	0.07	1700	2.339	34.579	2.222	27.616	56.0	17.967	0.06
200	7.514	33.897	7.495	26.481	157.4	4.673	0.06	1800	2.213	34.590	2.090	27.636	54.2	18.518	0.06
225	7.378	33.952	7.356	26.544	151.8	5.060	0.07	1900	2.115	34.598	1.985	27.651	52.8	19.053	0.06
250	7.106	33.978	7.083	26.603	146.5	5.433	0.07	2000	2.035	34.605	1.898	27.664	51.7	19.575	0.06
275	6.786	33.992	6.761	26.657	141.6	5.792	0.07	2002	2.031	34.605	1.894	27.664	51.7	19.585	0.06

data from secondary t/c sensors

Temperature, Salinity



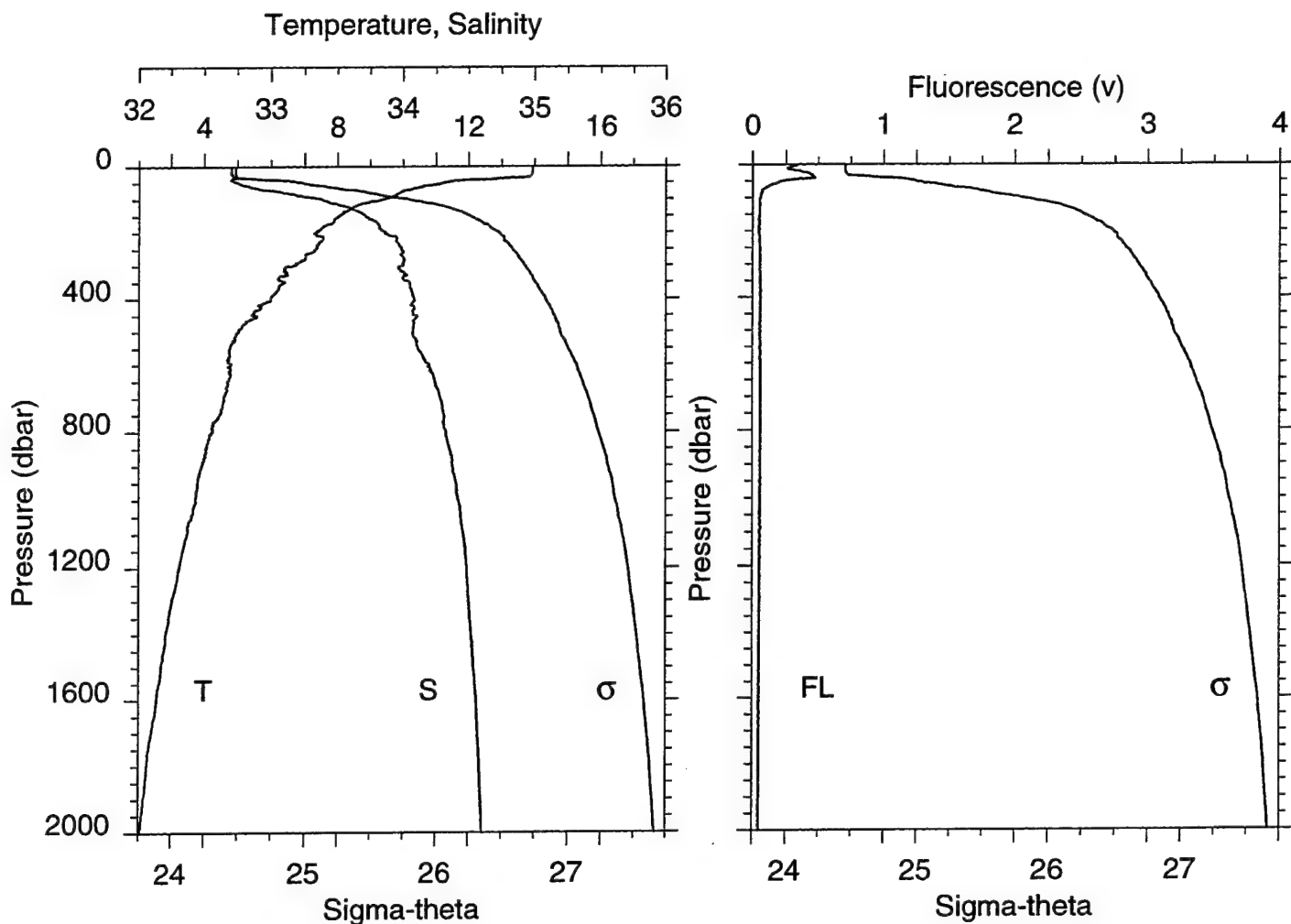
Fluorescence (v)



STA NO 62 LAT: 38 23.4 N LONG: 124 19.5 W
20 SEP 1993 1945 GMT DEPTH 3750

P	T	S	POT T	SIGMA	SVA	DYN HT	FL	P	T	S	POT T	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	14.140	32.692	14.139	24.376	354.3	0.106	0.23	300	6.531	33.980	6.504	26.682	139.4	6.303	0.07
10	14.140	32.692	14.138	24.376	354.4	0.354	0.27	350	5.866	33.980	5.836	26.767	131.6	6.982	0.06
20	14.128	32.692	14.125	24.379	354.5	0.709	0.45	400	5.626	34.028	5.593	26.835	125.6	7.625	0.07
30	14.092	32.692	14.088	24.387	354.0	1.063	0.46	450	5.439	34.082	5.402	26.901	119.8	8.235	0.07
40	12.254	32.672	12.249	24.735	320.9	1.400	0.45	500	5.245	34.125	5.204	26.958	114.8	8.820	0.07
50	11.492	32.733	11.486	24.924	303.1	1.714	0.29	600	4.828	34.205	4.781	27.070	104.9	9.919	0.07
60	10.688	32.806	10.681	25.124	284.3	2.008	0.19	700	4.315	34.261	4.262	27.171	95.7	10.918	0.07
70	10.002	32.932	9.994	25.339	264.0	2.285	0.14	800	4.163	34.357	4.103	27.264	87.6	11.834	0.07
80	9.696	33.111	9.687	25.529	246.0	2.540	0.09	900	4.054	34.416	3.987	27.323	82.8	12.687	0.07
90	9.491	33.324	9.481	25.729	227.2	2.777	0.07	1000	3.819	34.442	3.745	27.369	79.0	13.498	0.07
100	9.232	33.374	9.221	25.810	219.7	2.999	0.07	1100	3.529	34.468	3.448	27.418	74.5	14.265	0.07
110	8.972	33.454	8.961	25.914	210.0	3.215	0.07	1200	3.261	34.492	3.176	27.463	70.3	14.987	0.06
120	8.723	33.562	8.710	26.038	198.4	3.420	0.06	1300	3.036	34.507	2.944	27.496	67.2	15.675	0.06
130	8.542	33.663	8.528	26.145	188.4	3.612	0.06	1400	2.874	34.525	2.776	27.526	64.6	16.337	0.06
140	8.472	33.695	8.457	26.181	185.1	3.799	0.06	1500	2.707	34.540	2.603	27.553	62.1	16.970	0.06
150	8.296	33.738	8.281	26.241	179.5	3.982	0.07	1600	2.510	34.558	2.400	27.585	59.0	17.576	0.06
175	7.995	33.843	7.978	26.369	167.8	4.412	0.07	1700	2.342	34.573	2.225	27.611	56.4	18.152	0.06
200	7.573	33.882	7.554	26.461	159.3	4.822	0.07	1800	2.240	34.581	2.117	27.627	55.1	18.709	0.06
225	7.453	33.954	7.432	26.535	152.7	5.213	0.07	1900	2.108	34.594	1.978	27.648	53.0	19.250	0.06
250	7.193	33.974	7.169	26.588	148.0	5.588	0.07	2000	2.017	34.604	1.880	27.664	51.6	19.773	0.06
275	6.823	33.985	6.798	26.647	142.6	5.950	0.07	2002	2.016	34.604	1.879	27.664	51.6	19.784	0.06

data from secondary t/c sensors

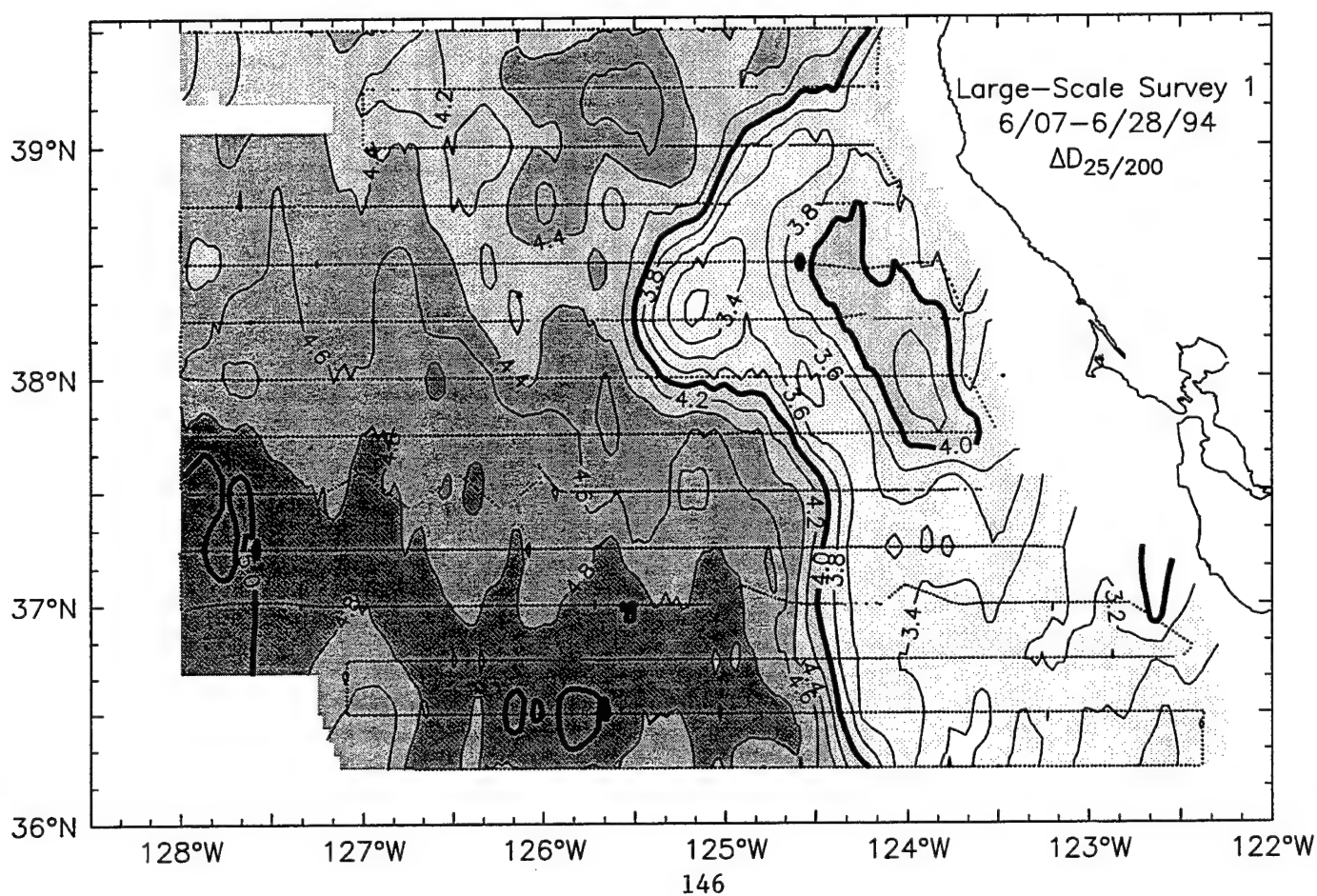
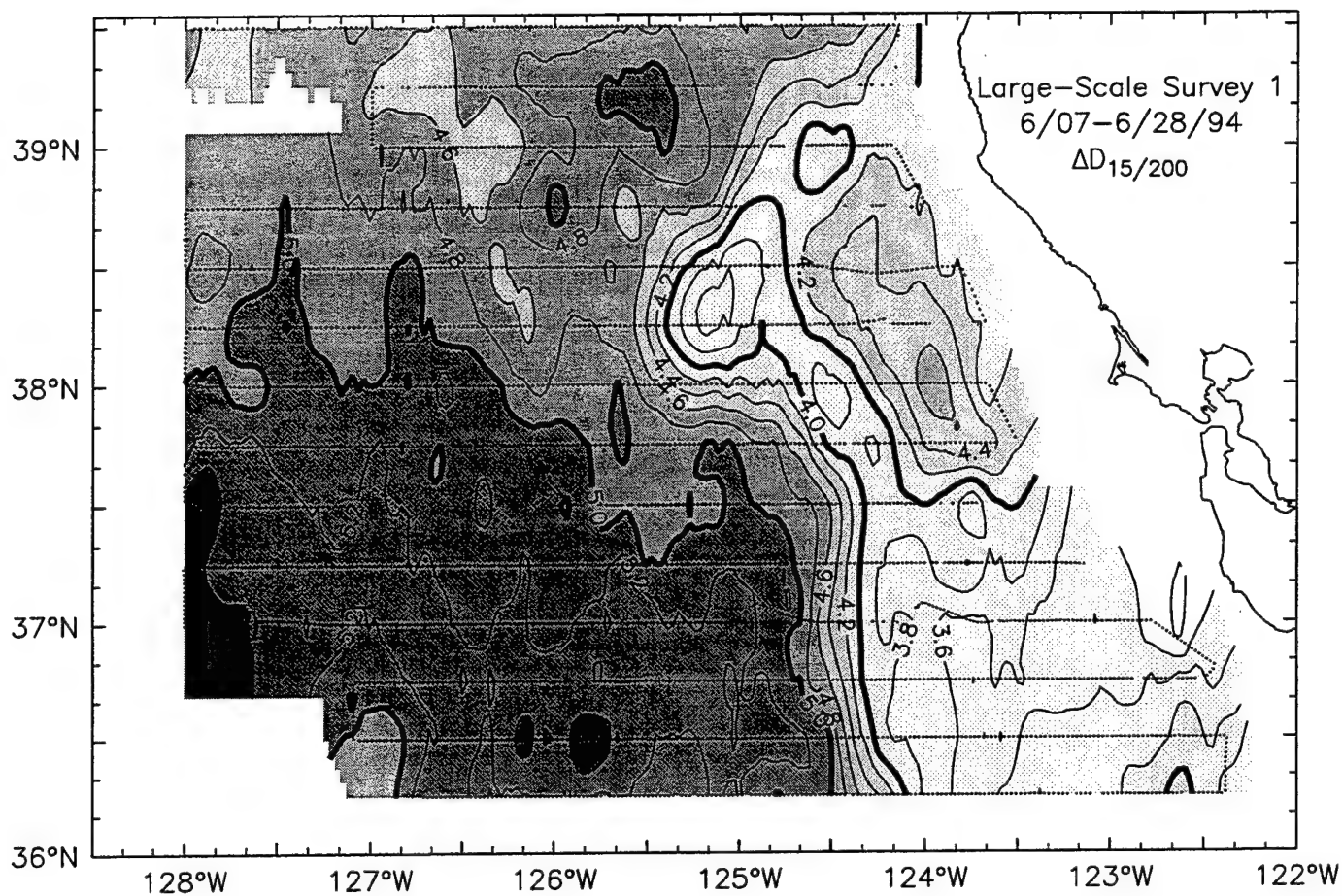


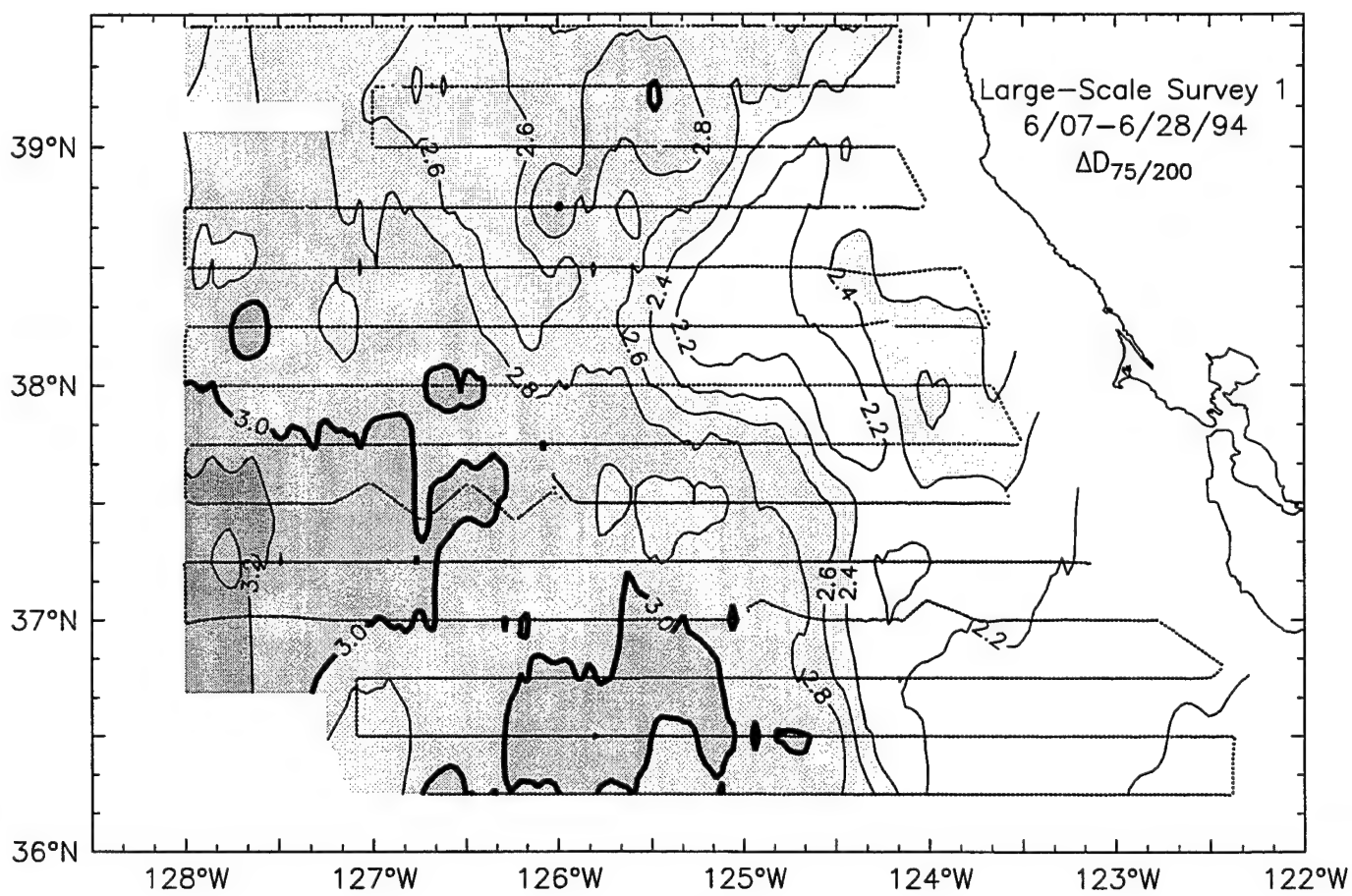
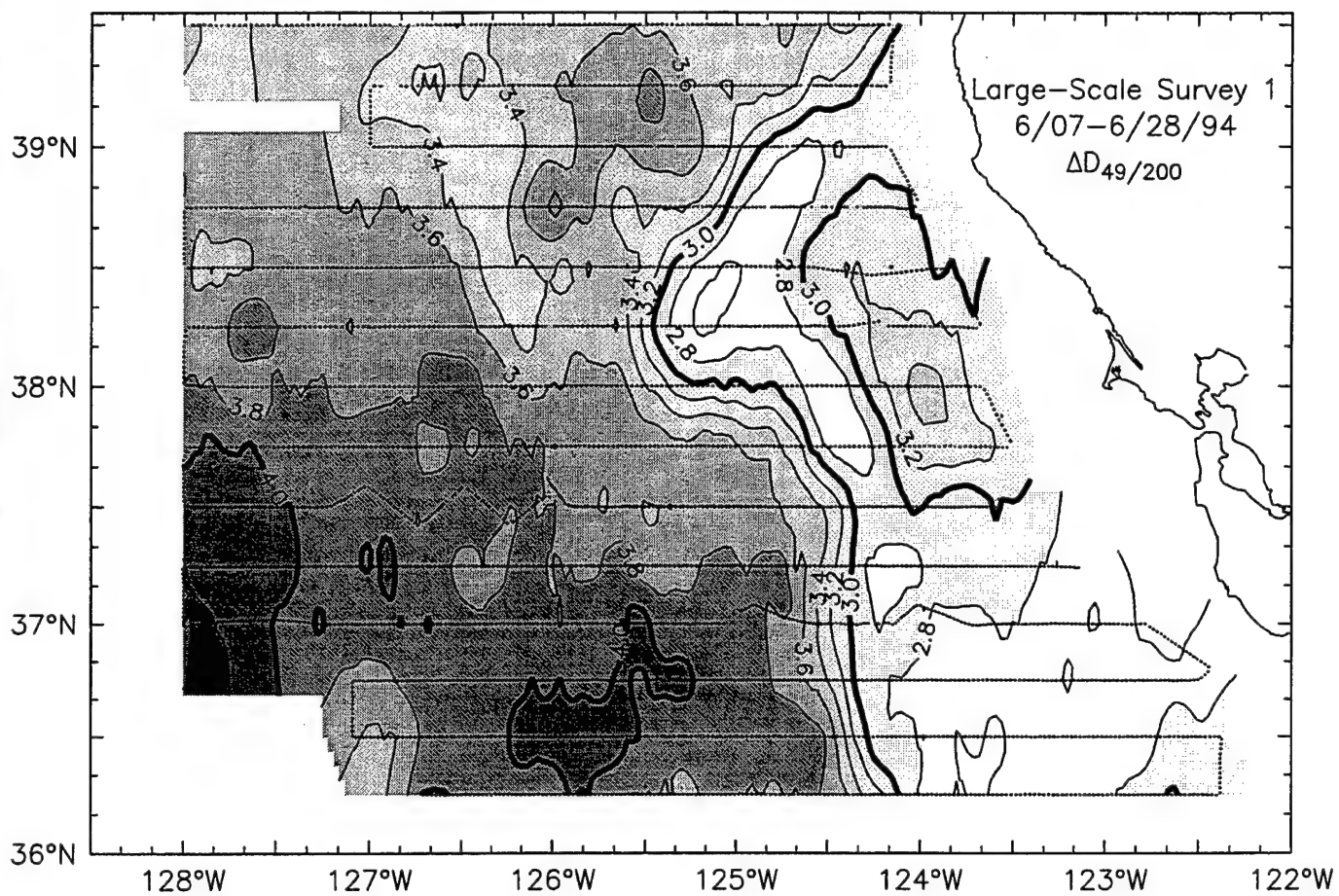
STA NO 63 LAT: 38 22.5 N LONG: 124 6.7 W
20 SEP 1993 2240 GMT DEPTH 3700

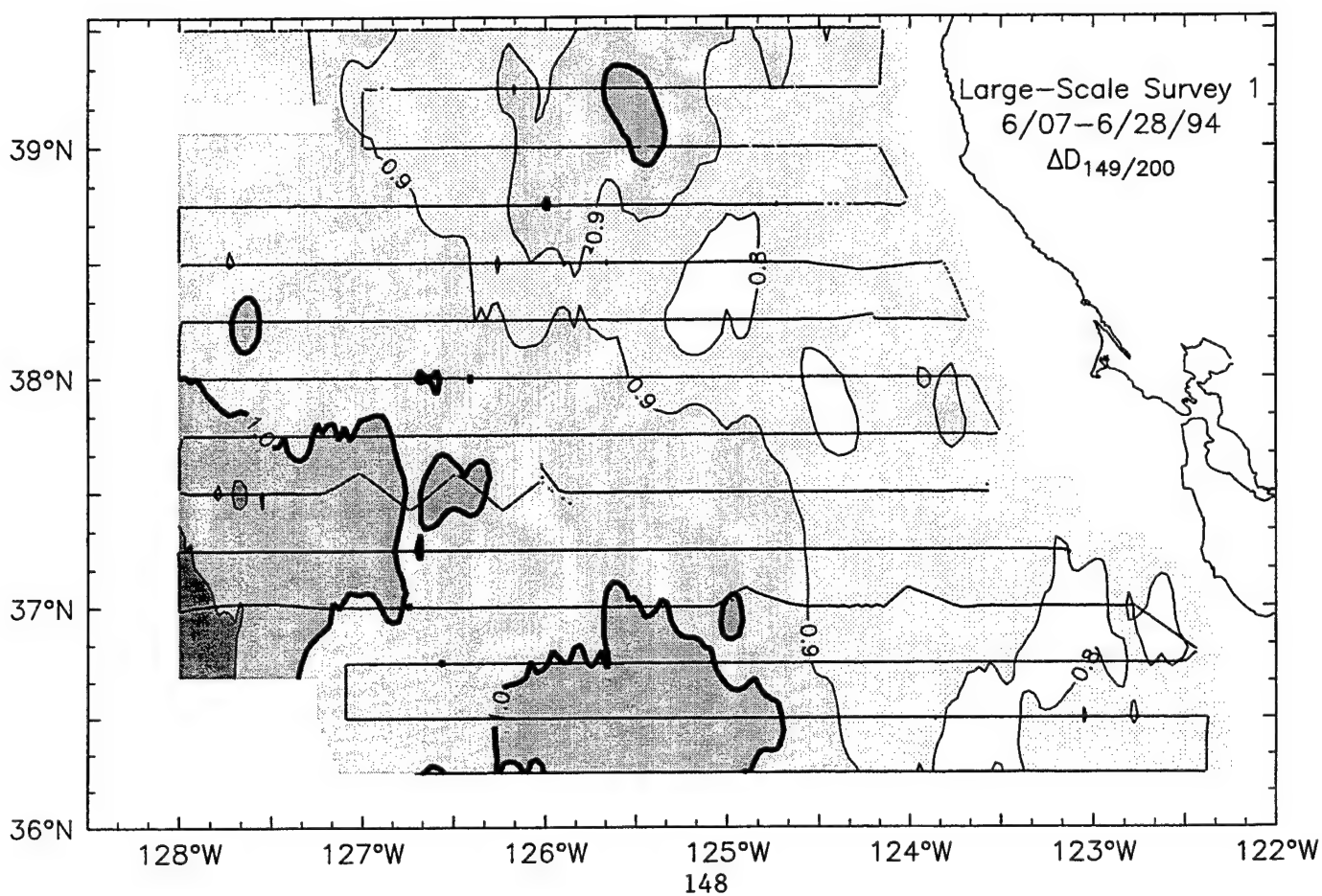
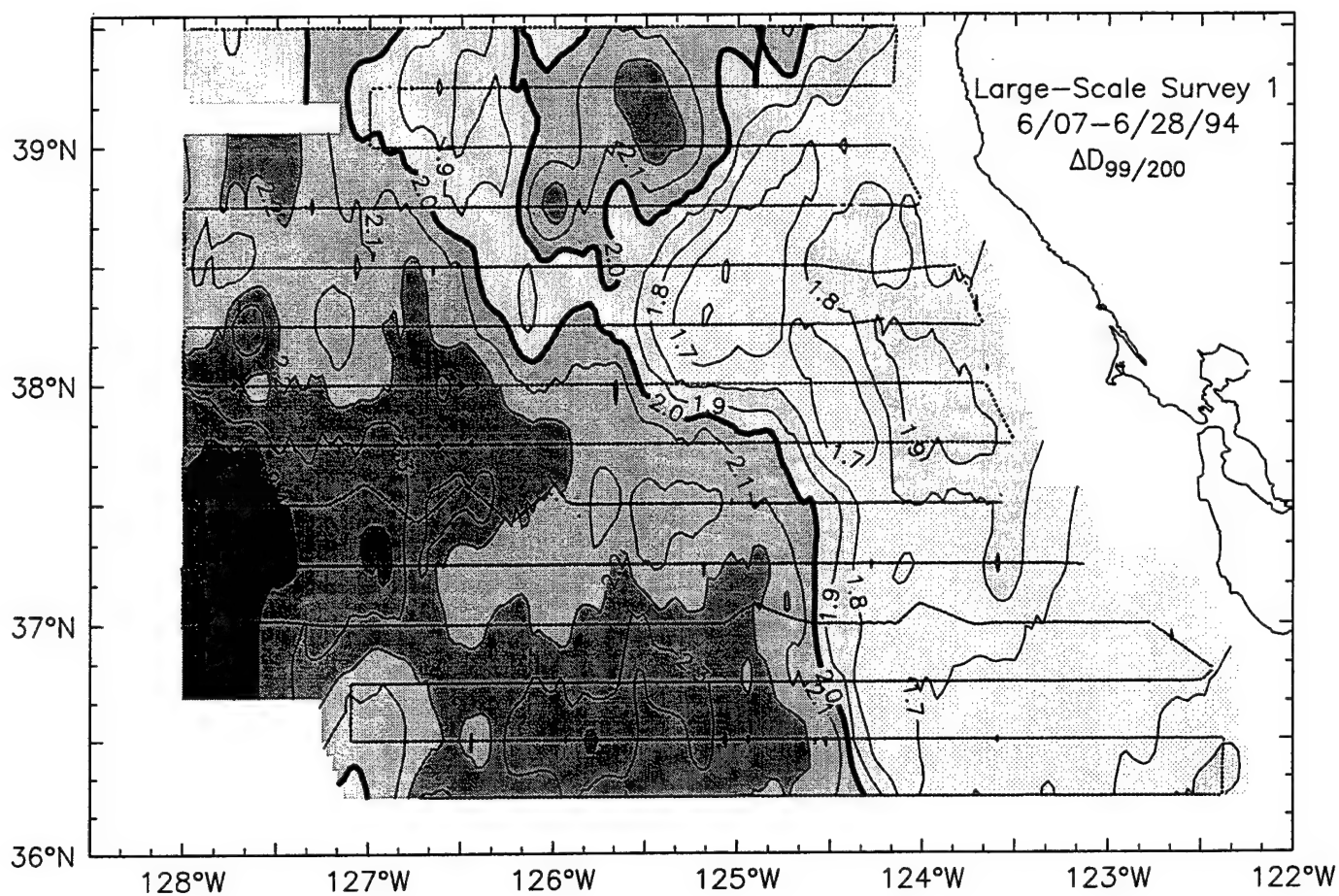
P	T	S	POTT	SIGMA	SVA	DYN HT	FL	P	T	S	POTT	SIGMA	SVA	DYN HT	FL
(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)	(DB)	(C)		(C)	THETA	(CL/T)	(J/KG)	(V)
3	13.927	32.737	13.926	24.455	346.8	0.104	0.33	300	6.620	33.990	6.593	26.678	139.8	6.262	0.06
10	13.931	32.737	13.929	24.454	347.1	0.347	0.28	350	6.379	34.048	6.348	26.756	133.0	6.942	0.06
20	13.933	32.737	13.930	24.454	347.4	0.694	0.35	400	5.993	34.083	5.959	26.834	126.1	7.589	0.06
30	13.877	32.744	13.873	24.471	345.9	1.041	0.43	450	5.590	34.106	5.553	26.902	119.9	8.203	0.06
40	12.397	32.709	12.392	24.737	320.8	1.377	0.47	500	5.035	34.075	4.995	26.943	116.0	8.791	0.06
50	11.245	32.761	11.239	24.990	296.8	1.682	0.22	600	4.799	34.197	4.752	27.067	105.2	9.896	0.06
60	10.611	32.840	10.604	25.164	280.5	1.972	0.15	700	4.599	34.286	4.545	27.160	97.1	10.909	0.06
70	10.244	32.932	10.236	25.298	267.9	2.246	0.10	800	4.255	34.330	4.195	27.233	90.7	11.848	0.06
80	9.902	33.101	9.893	25.488	250.0	2.502	0.07	900	3.935	34.379	3.869	27.306	84.2	12.719	0.06
90	9.700	33.238	9.690	25.628	236.9	2.745	0.07	1000	3.748	34.423	3.675	27.360	79.5	13.533	0.06
100	9.360	33.385	9.349	25.798	220.8	2.973	0.06	1100	3.493	34.463	3.413	27.418	74.4	14.301	0.06
110	8.859	33.444	8.847	25.924	209.0	3.188	0.06	1200	3.260	34.489	3.174	27.461	70.4	15.023	0.06
120	8.538	33.556	8.525	26.061	196.1	3.389	0.06	1300	3.037	34.504	2.946	27.494	67.4	15.713	0.06
130	8.349	33.622	8.336	26.142	188.6	3.581	0.05	1400	2.850	34.523	2.752	27.527	64.4	16.373	0.05
140	8.200	33.683	8.186	26.212	182.1	3.766	0.06	1500	2.712	34.541	2.608	27.553	62.1	17.006	0.05
150	8.022	33.716	8.007	26.264	177.2	3.945	0.05	1600	2.561	34.562	2.450	27.584	59.3	17.612	0.05
175	7.677	33.816	7.660	26.394	165.3	4.374	0.05	1700	2.404	34.573	2.287	27.607	57.1	18.196	0.05
200	7.320	33.863	7.302	26.482	157.2	4.778	0.05	1800	2.256	34.586	2.133	27.629	54.9	18.754	0.05
225	7.495	33.949	7.473	26.525	153.6	5.166	0.06	1900	2.150	34.596	2.020	27.647	53.3	19.297	0.05
250	7.317	33.990	7.293	26.582	148.5	5.542	0.06	2000	2.034	34.607	1.897	27.665	51.6	19.822	0.05
275	7.028	34.002	7.002	26.632	144.0	5.907	0.06	2002	2.033	34.607	1.896	27.665	51.6	19.832	0.05

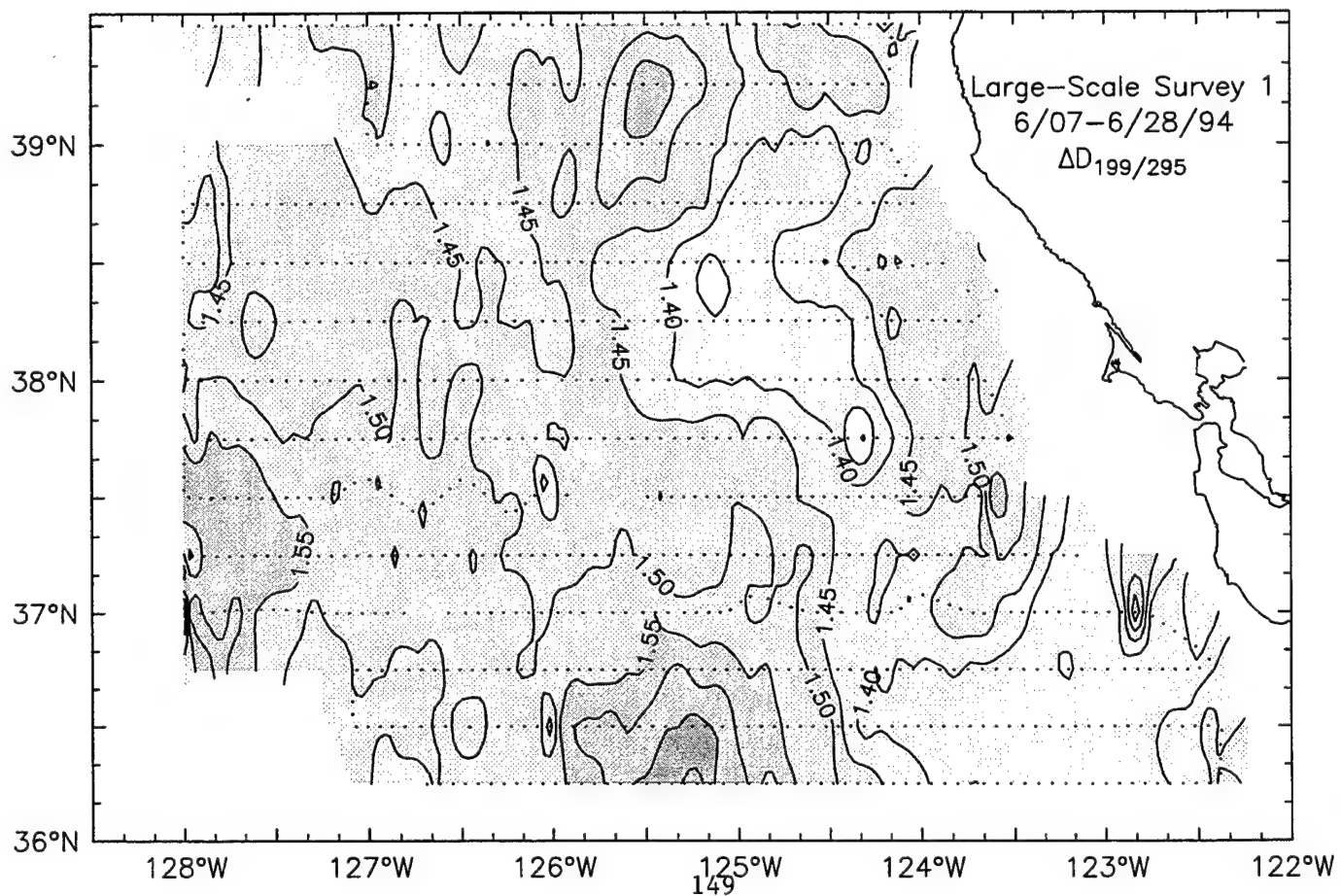
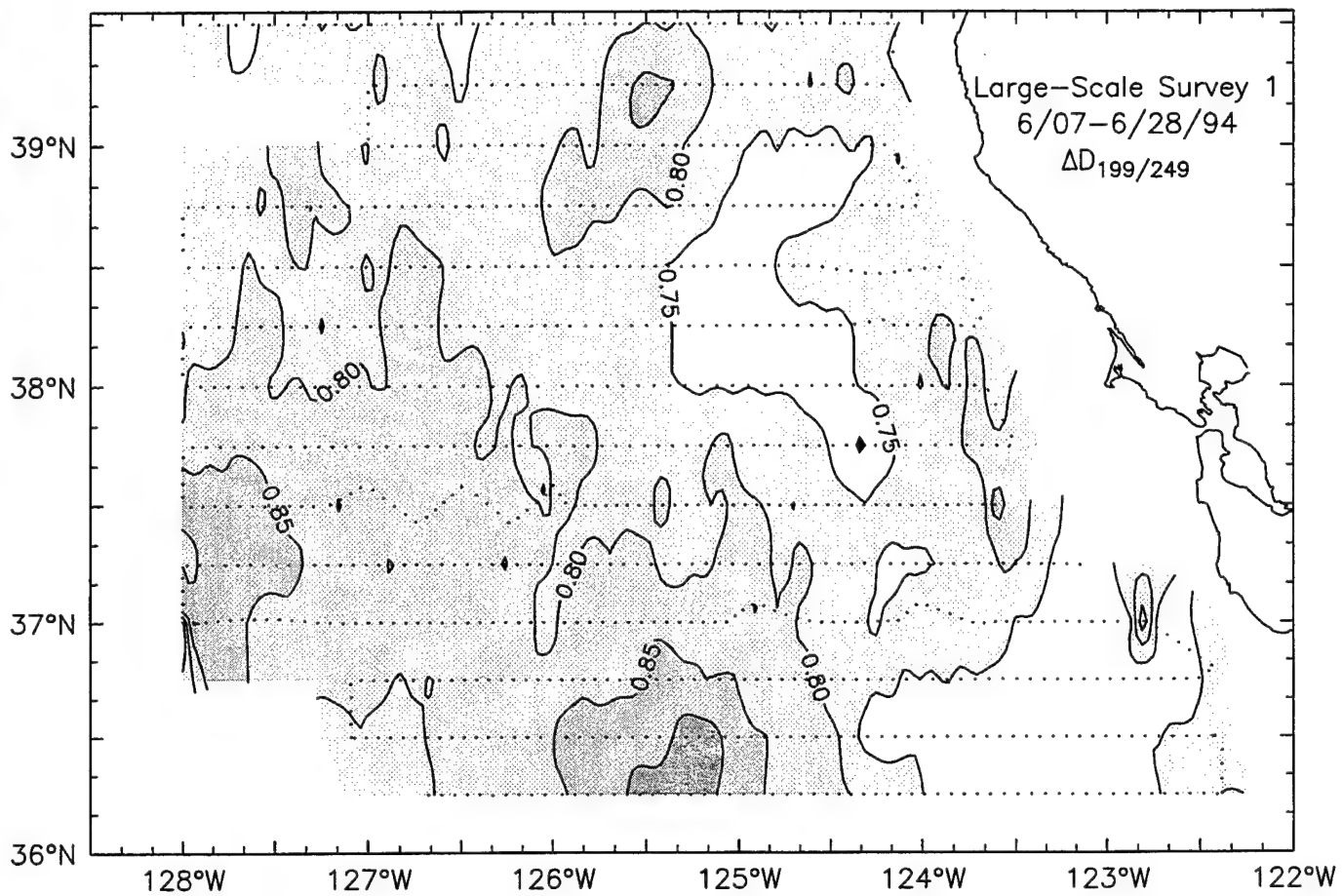
data from secondary t/c sensors

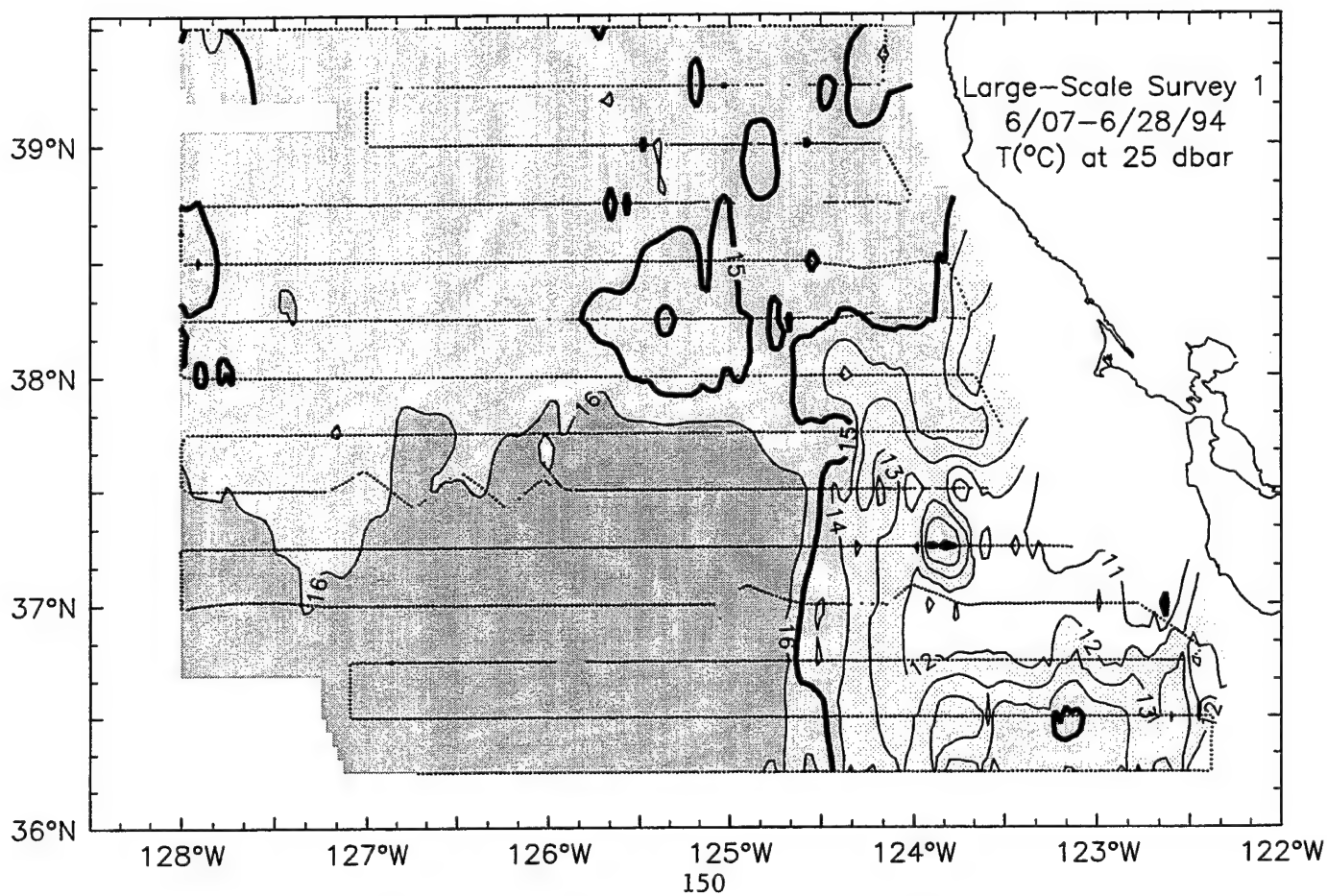
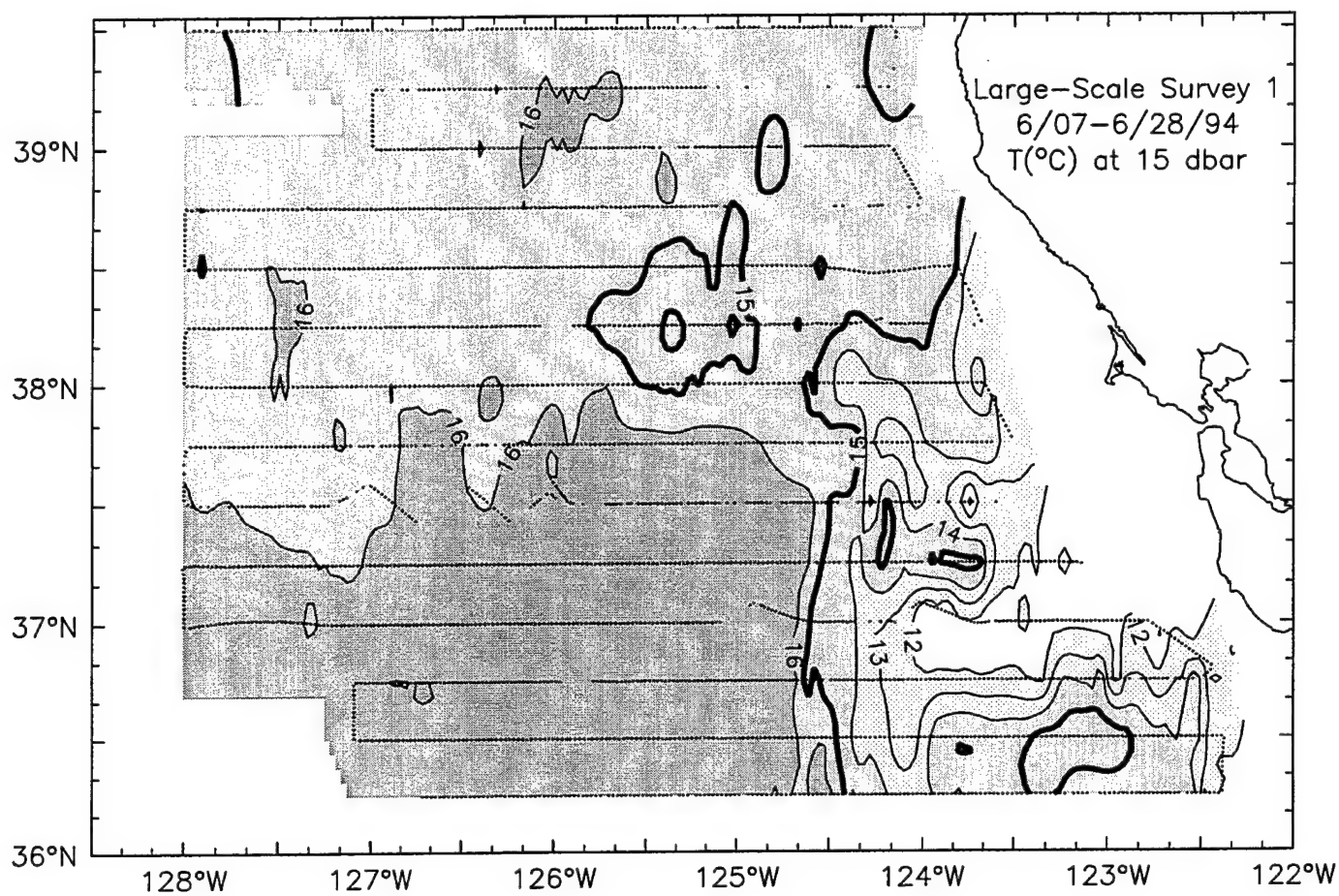
MAPS OF
DYNAMIC TOPOGRAPHY,
TEMPERATURE, SALINITY AND SIGMA-T

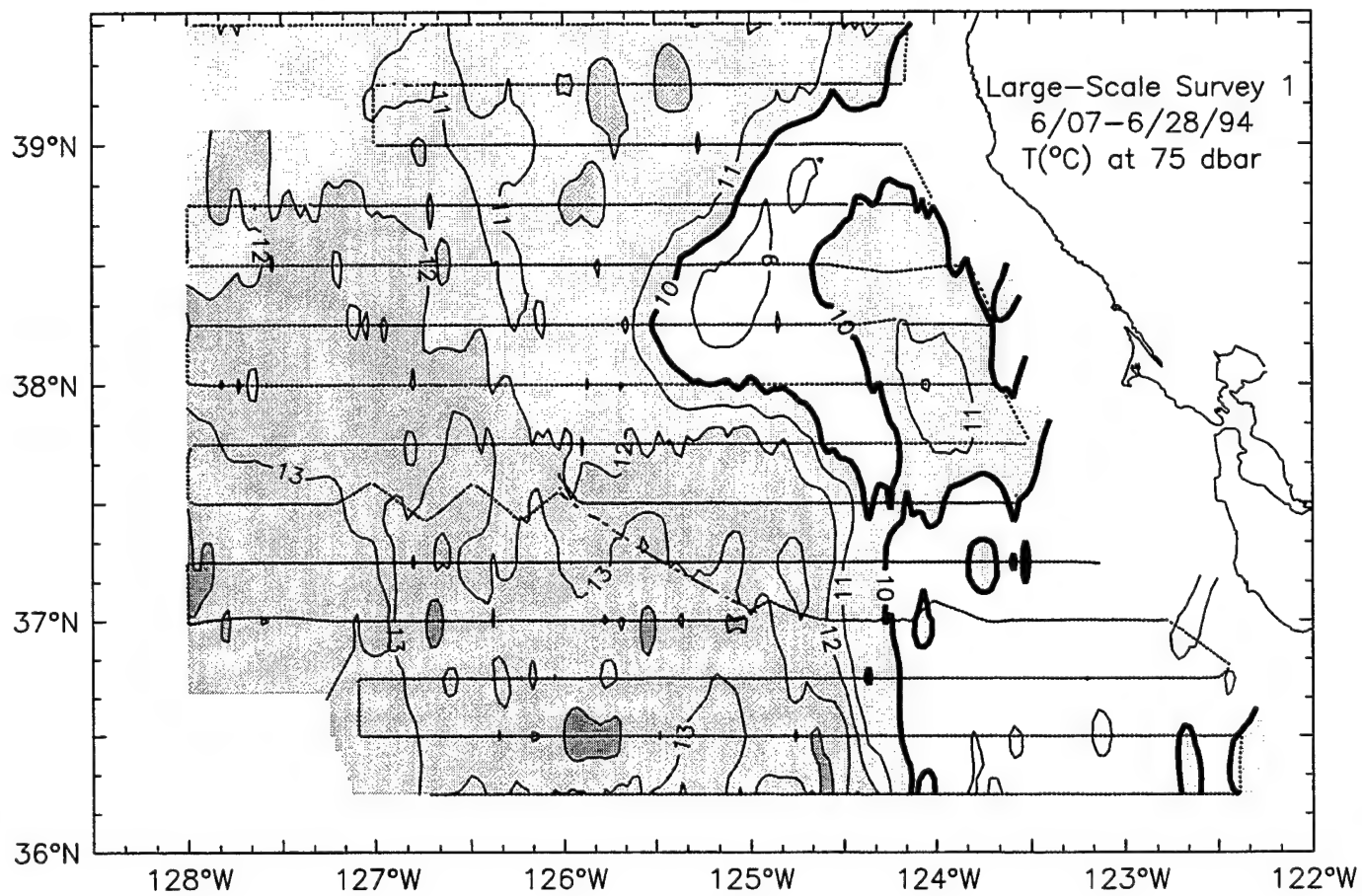
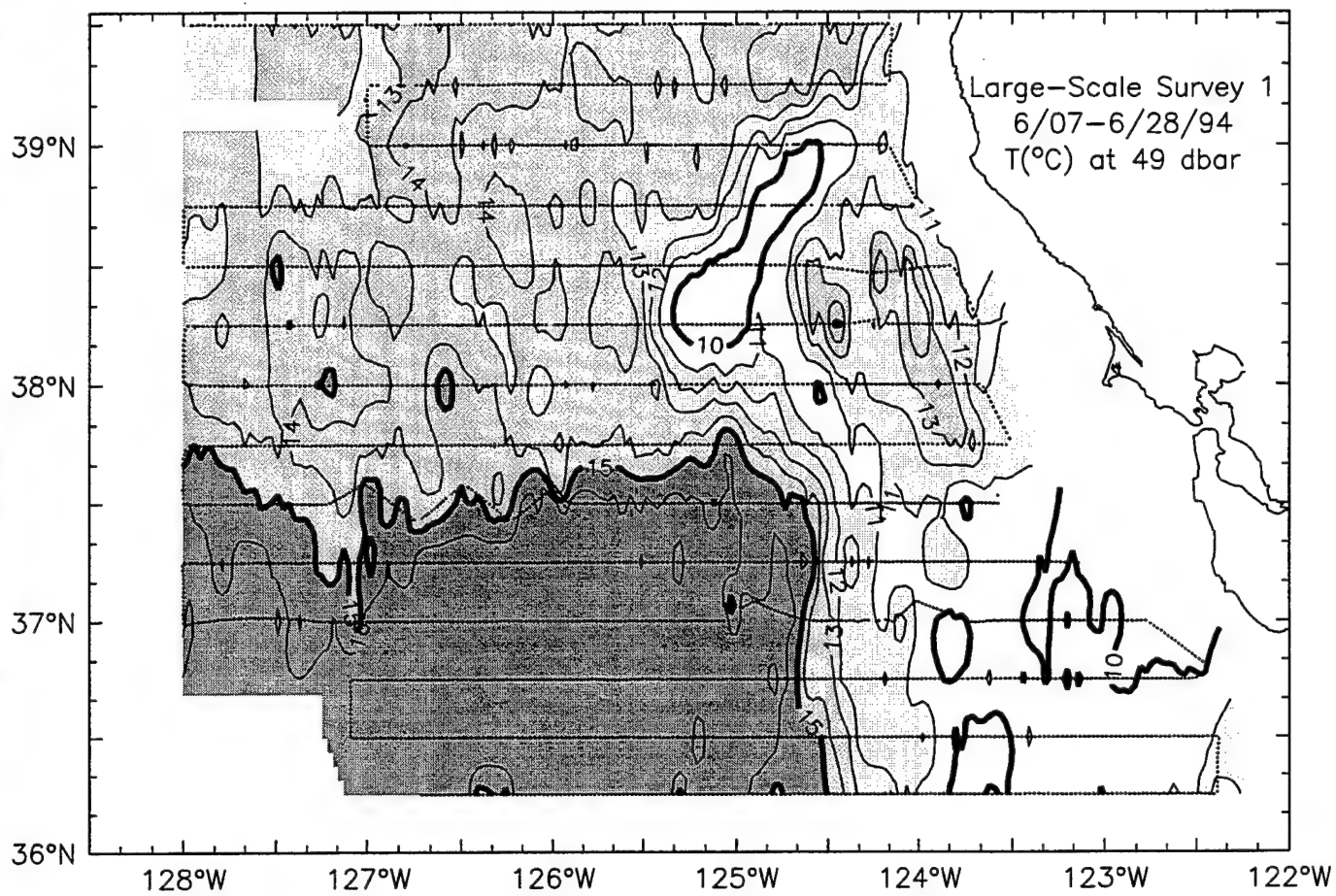


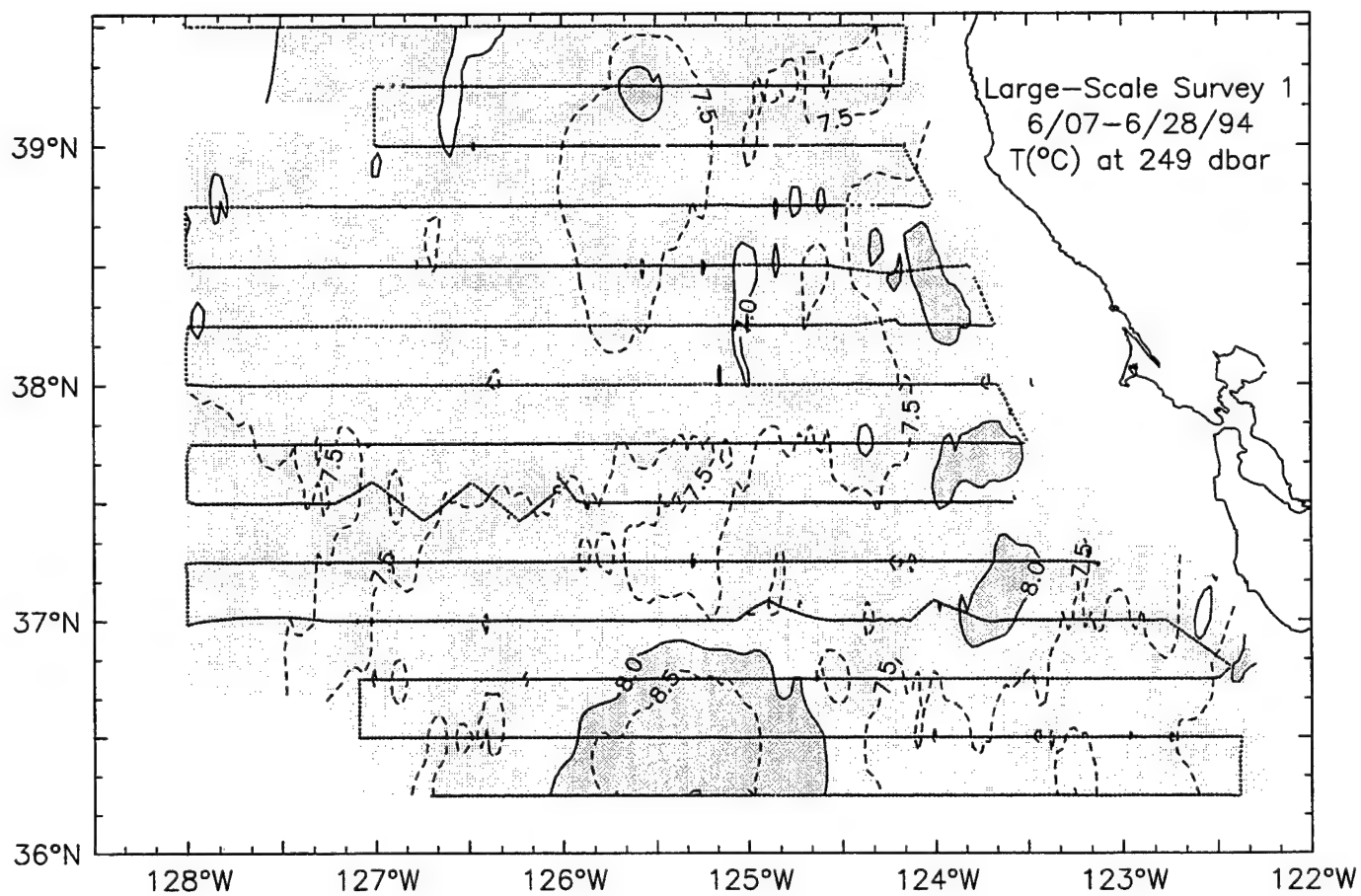
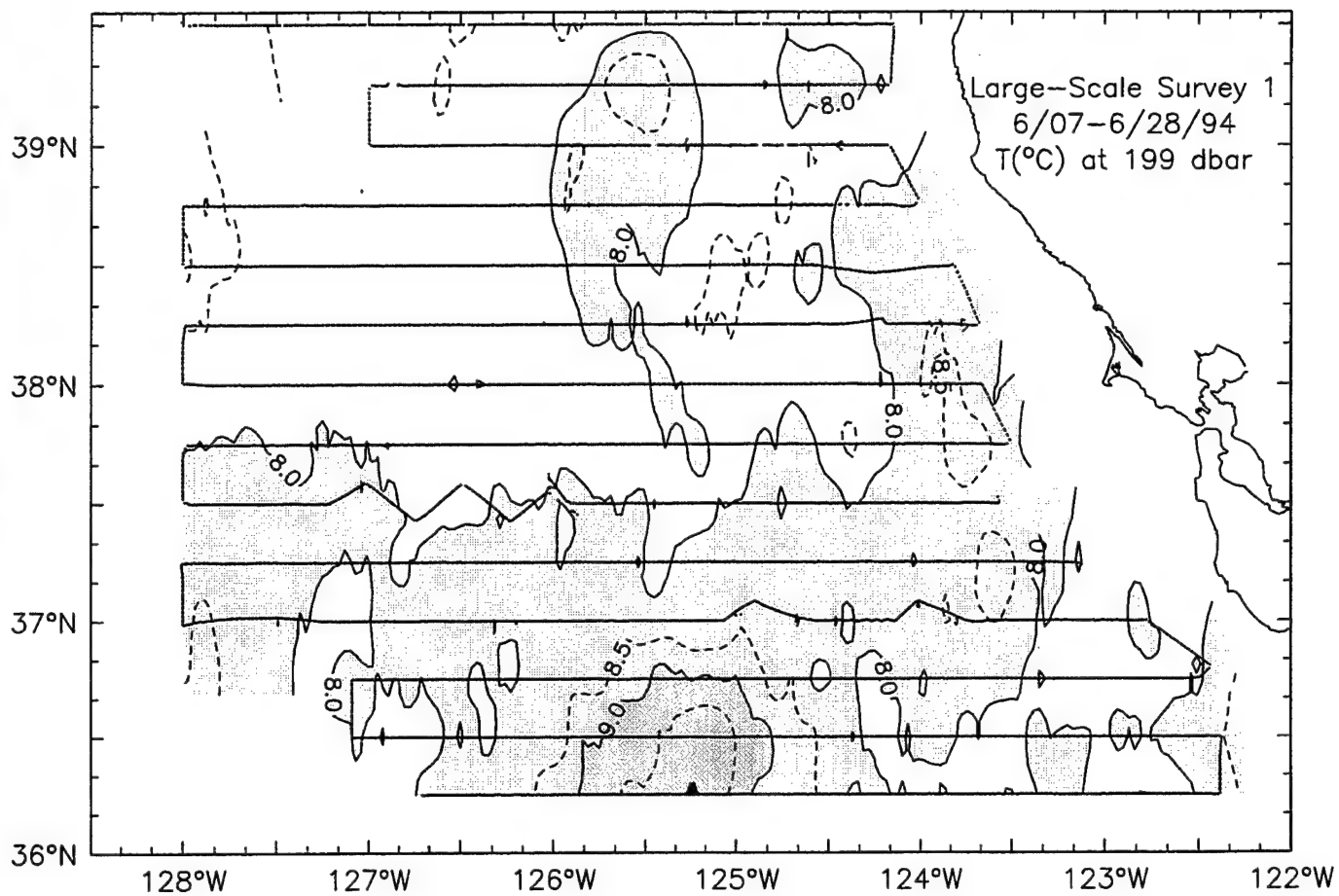


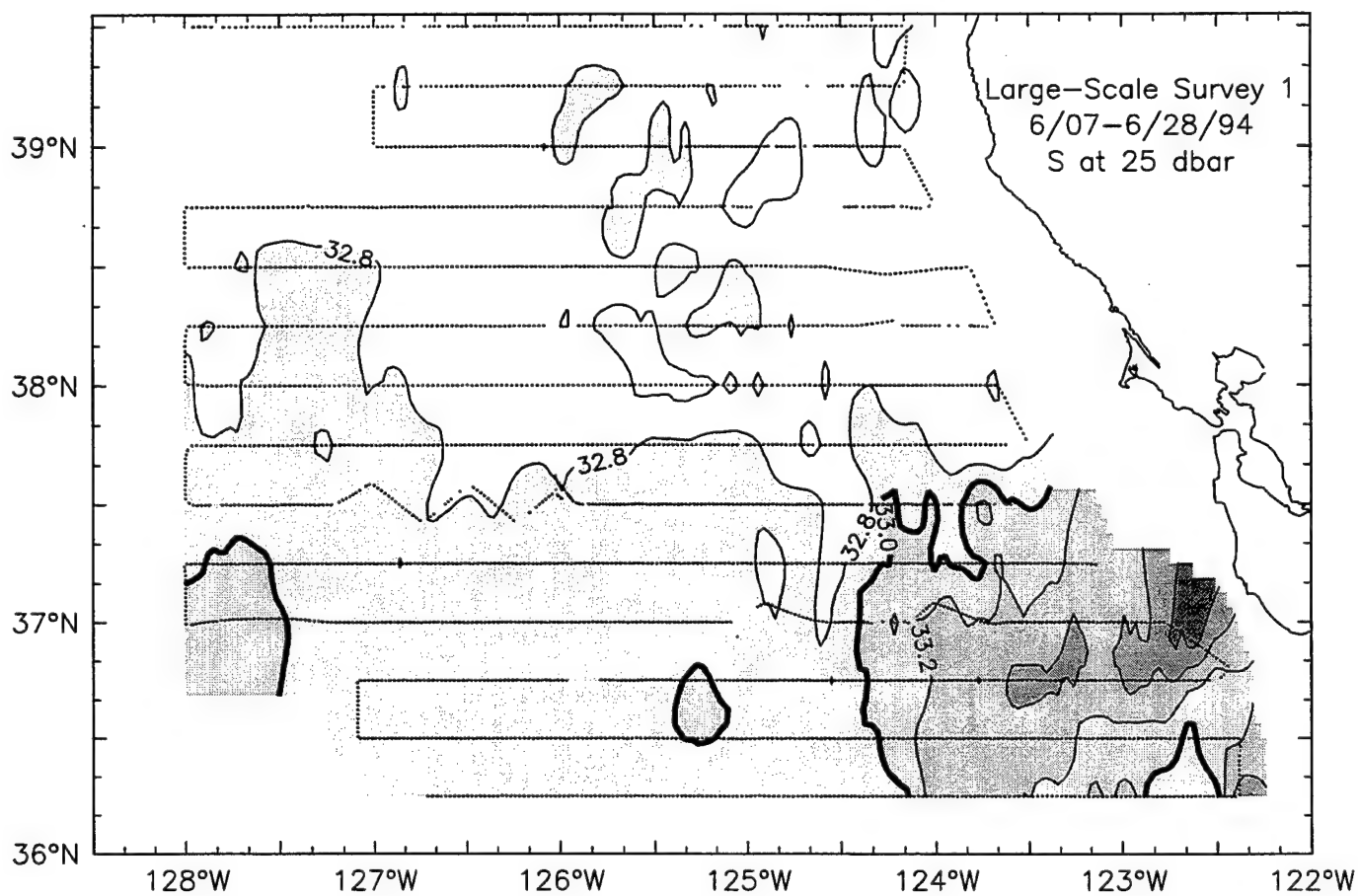
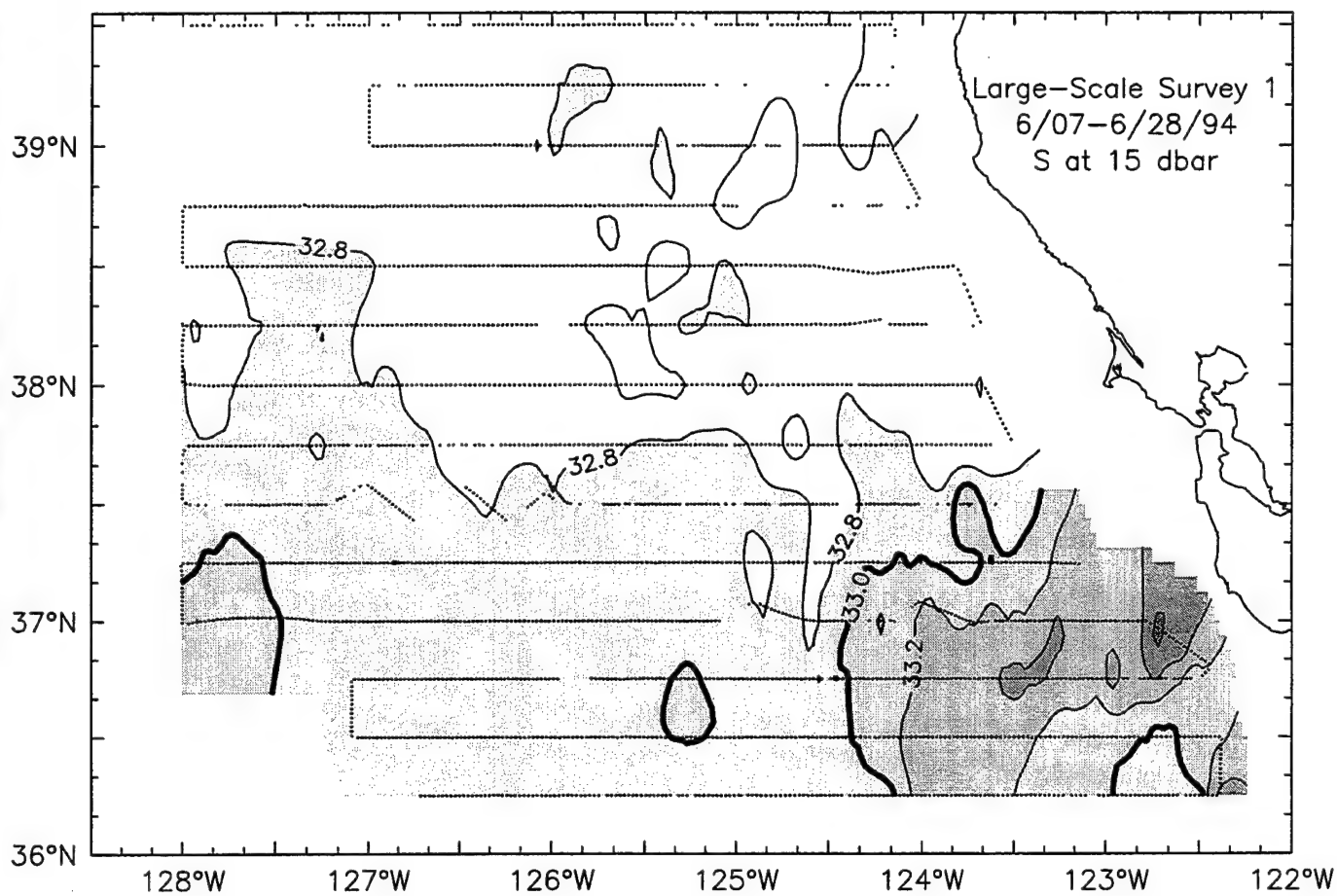


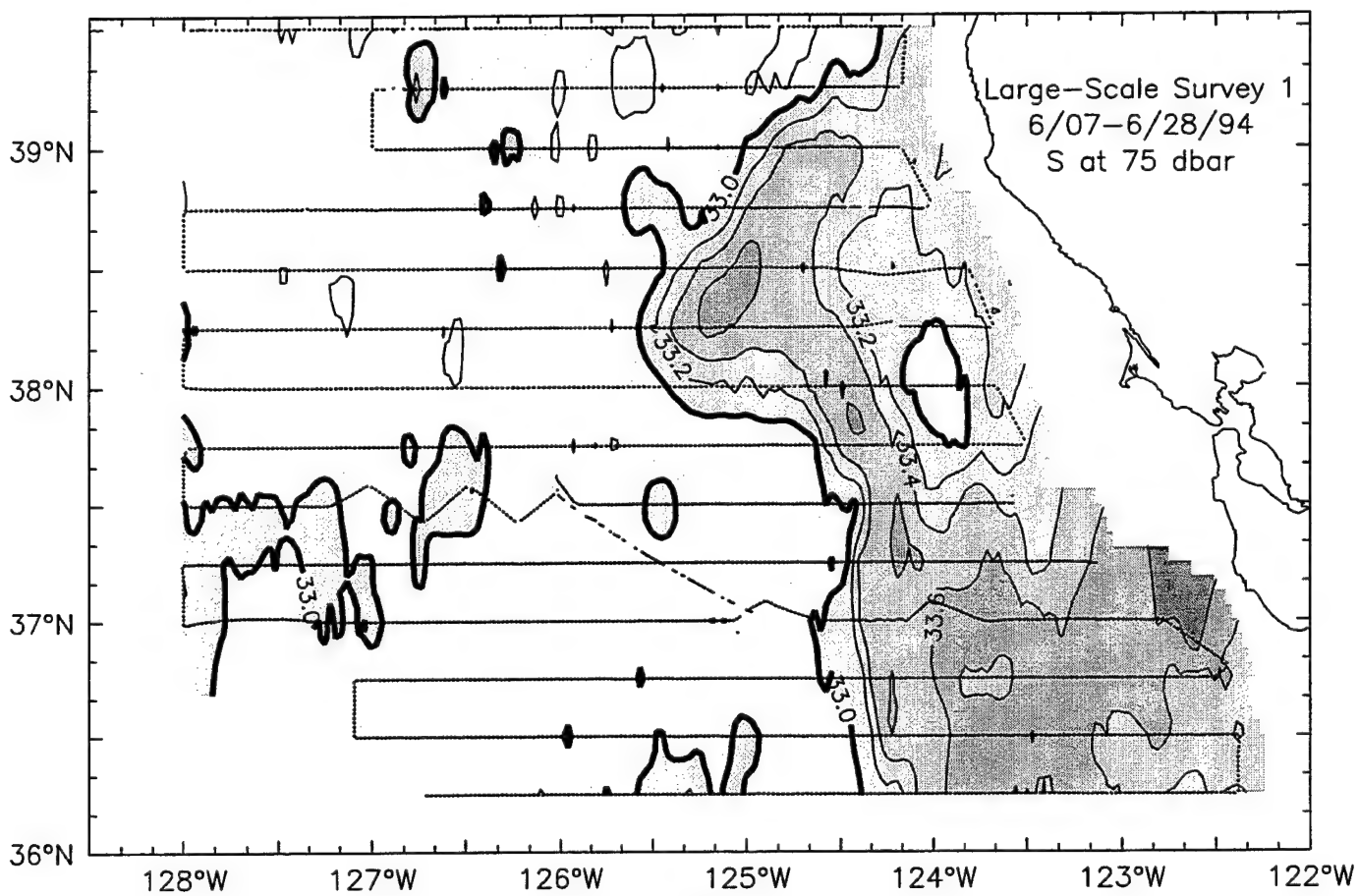
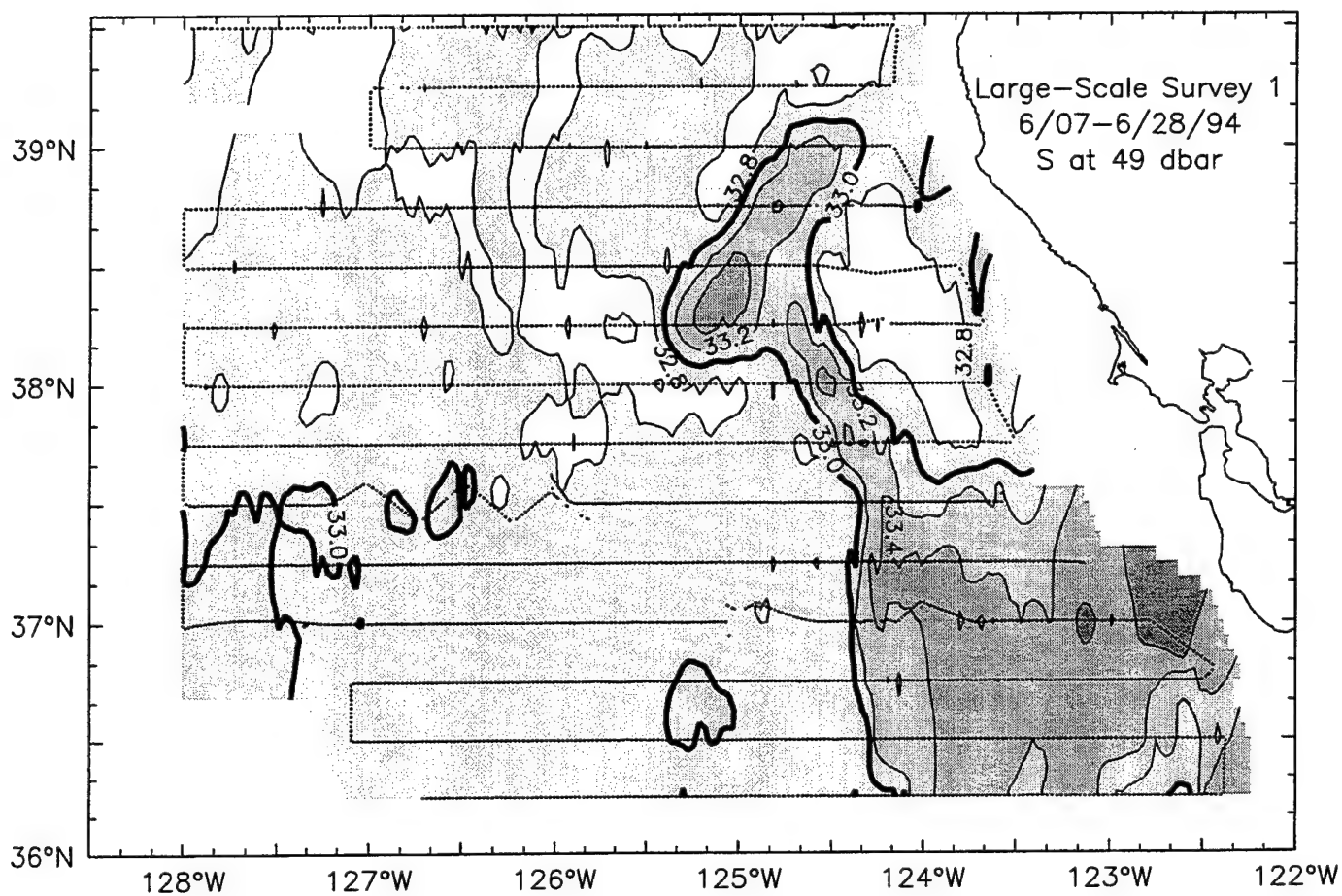


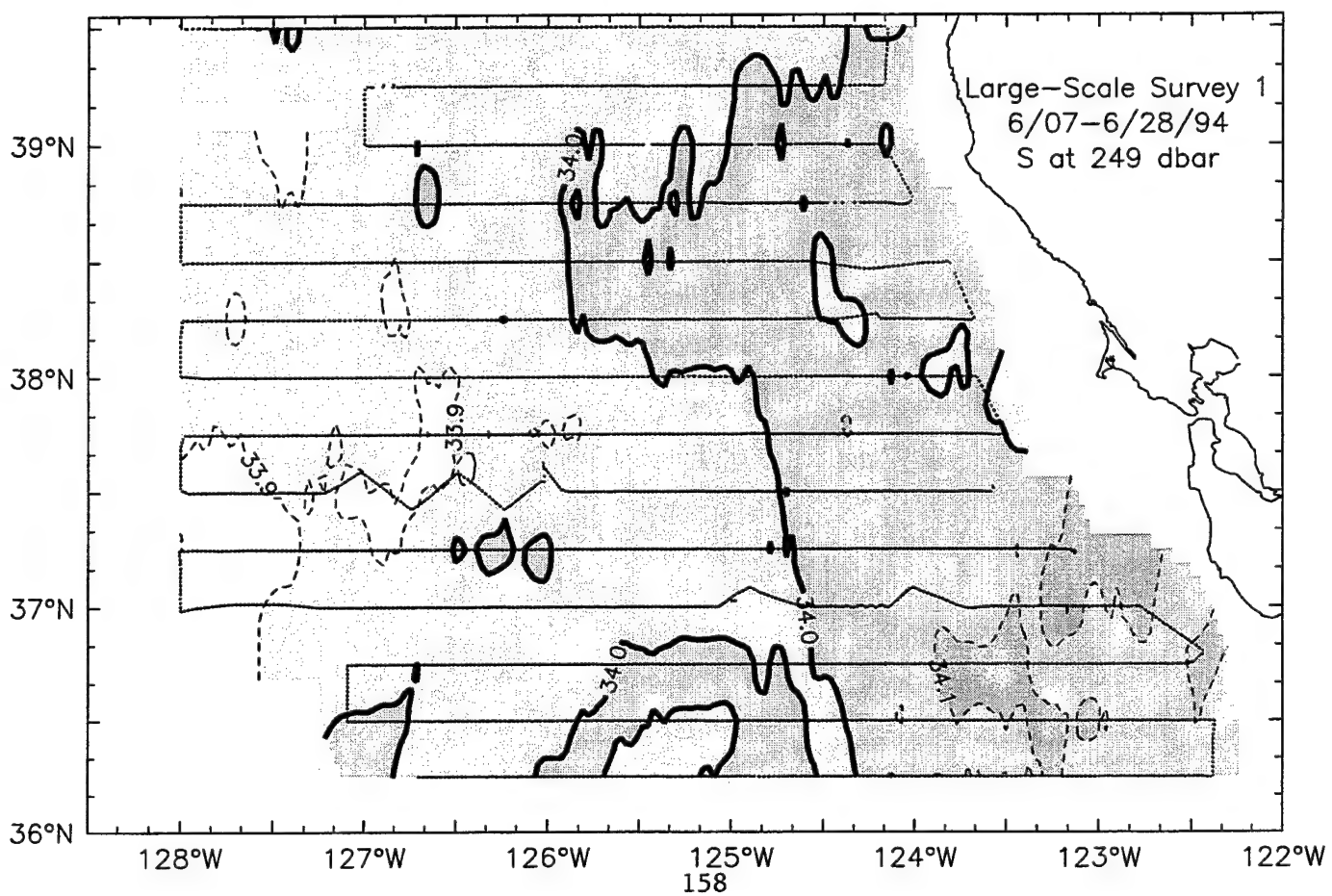
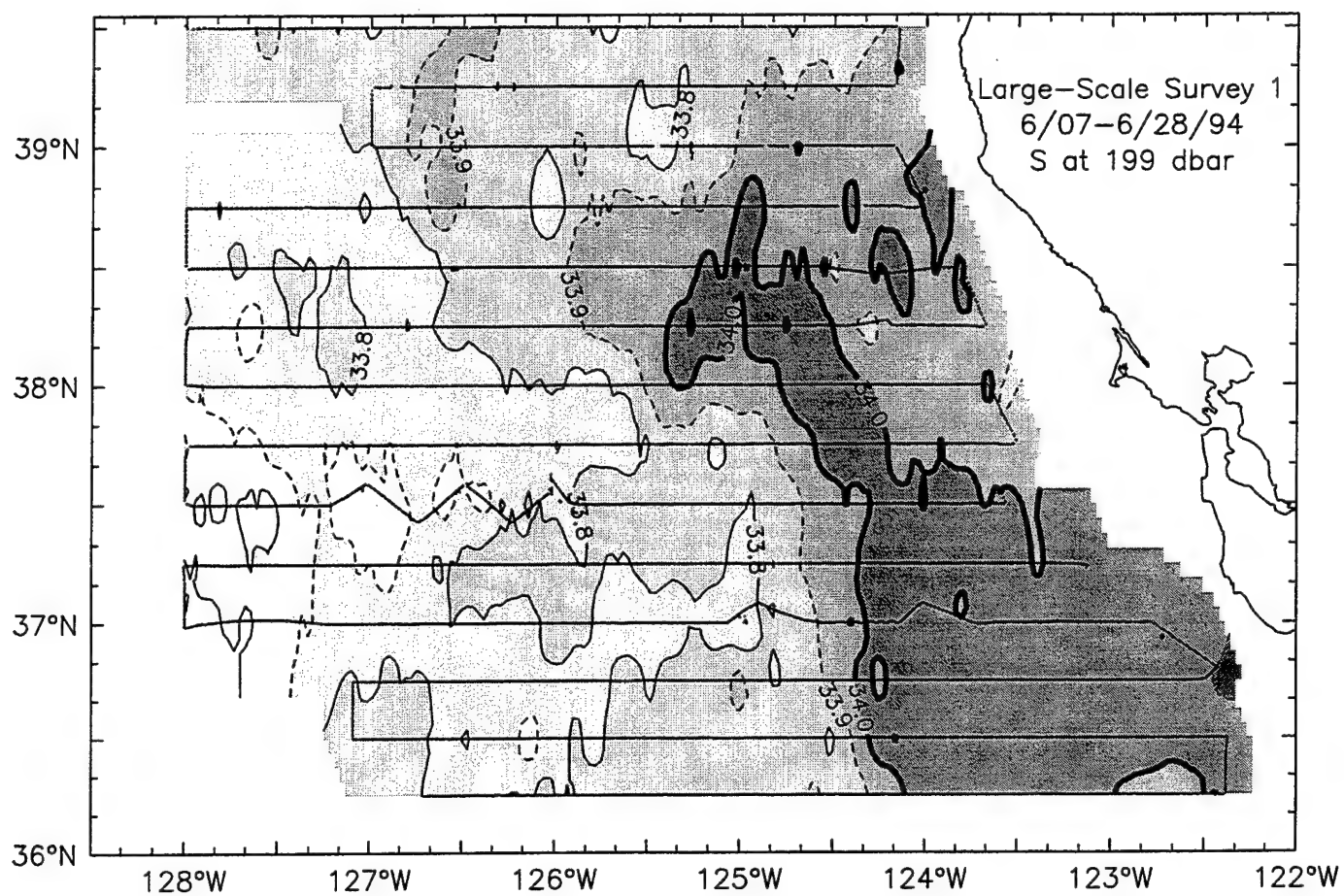


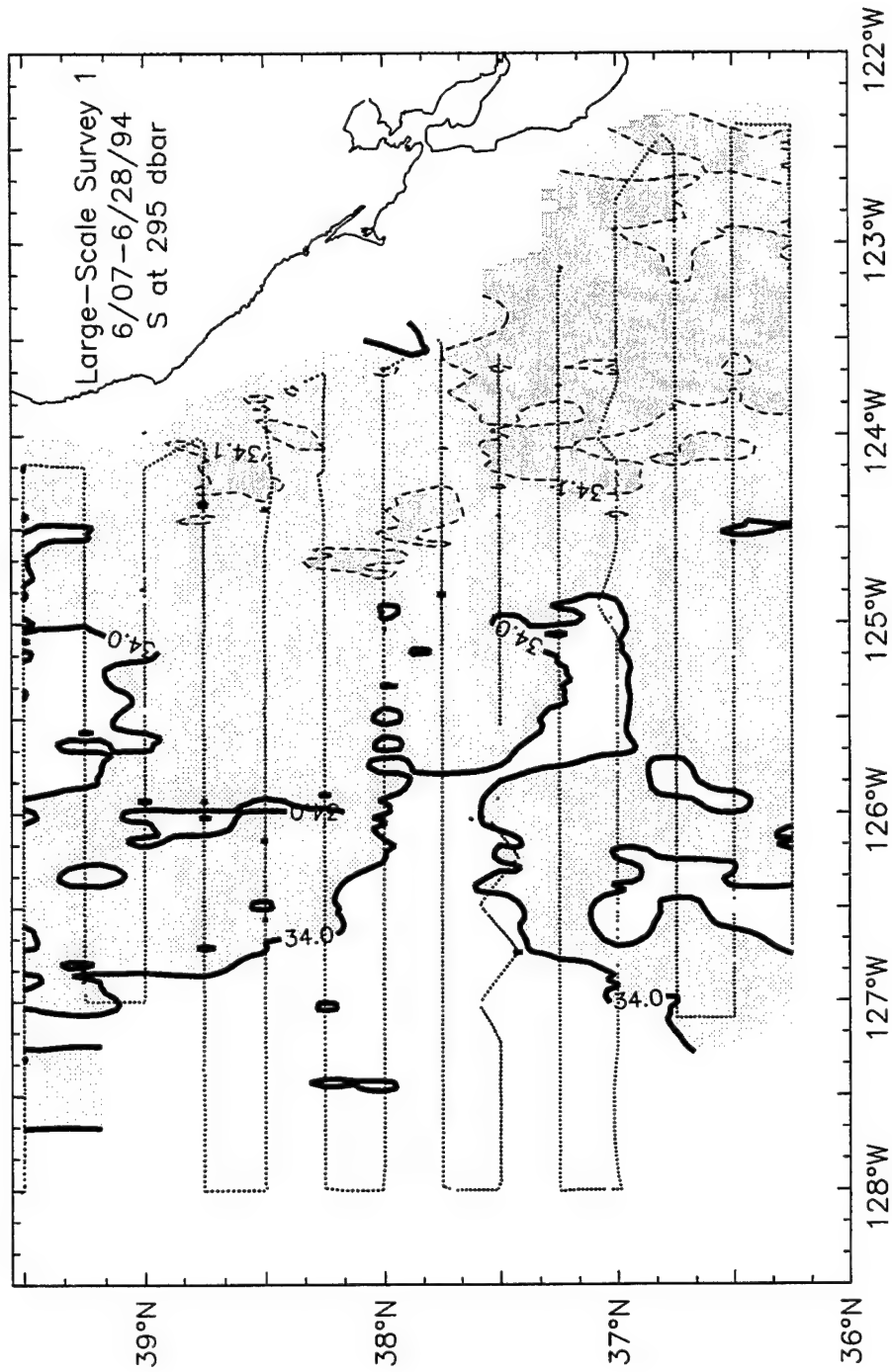


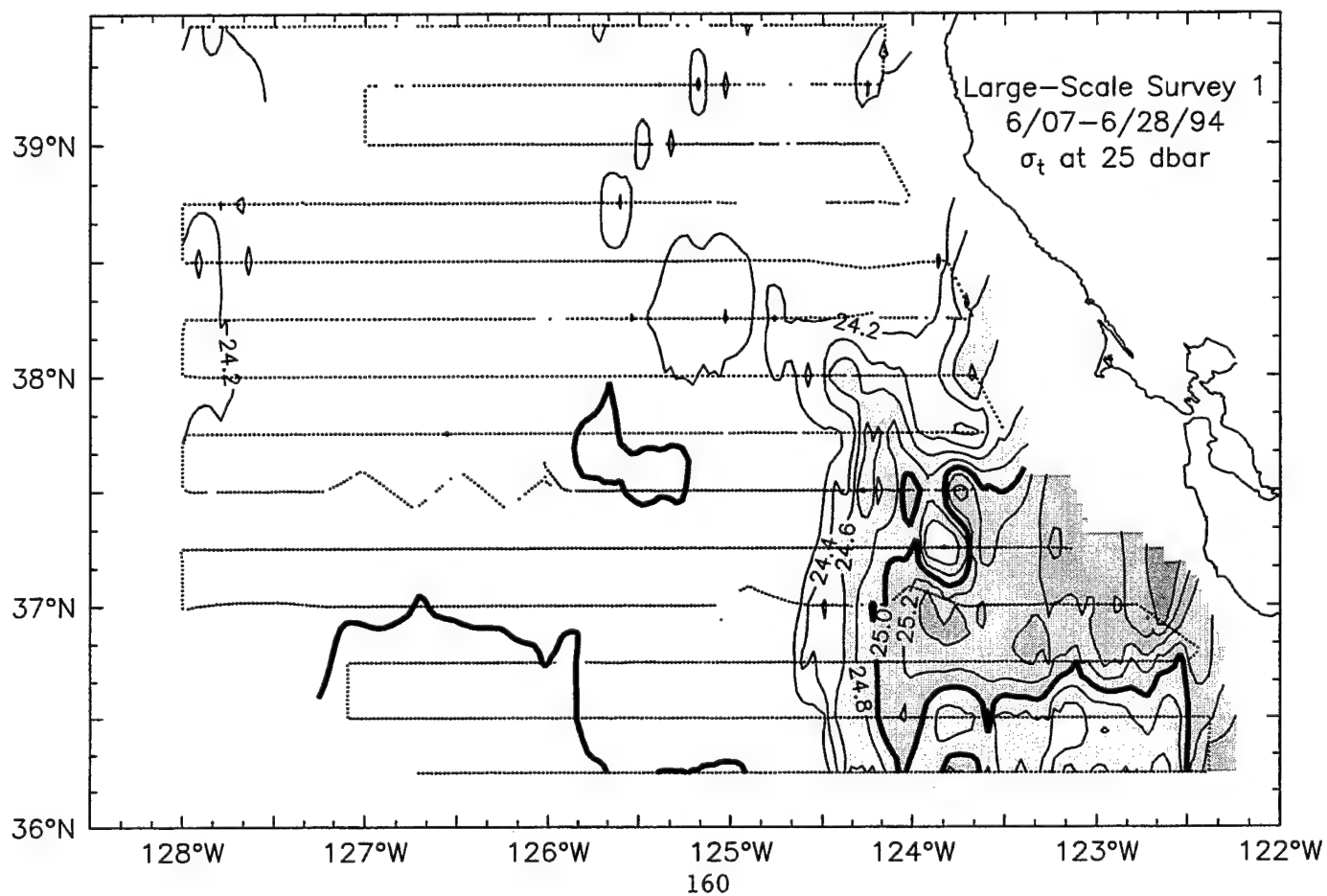
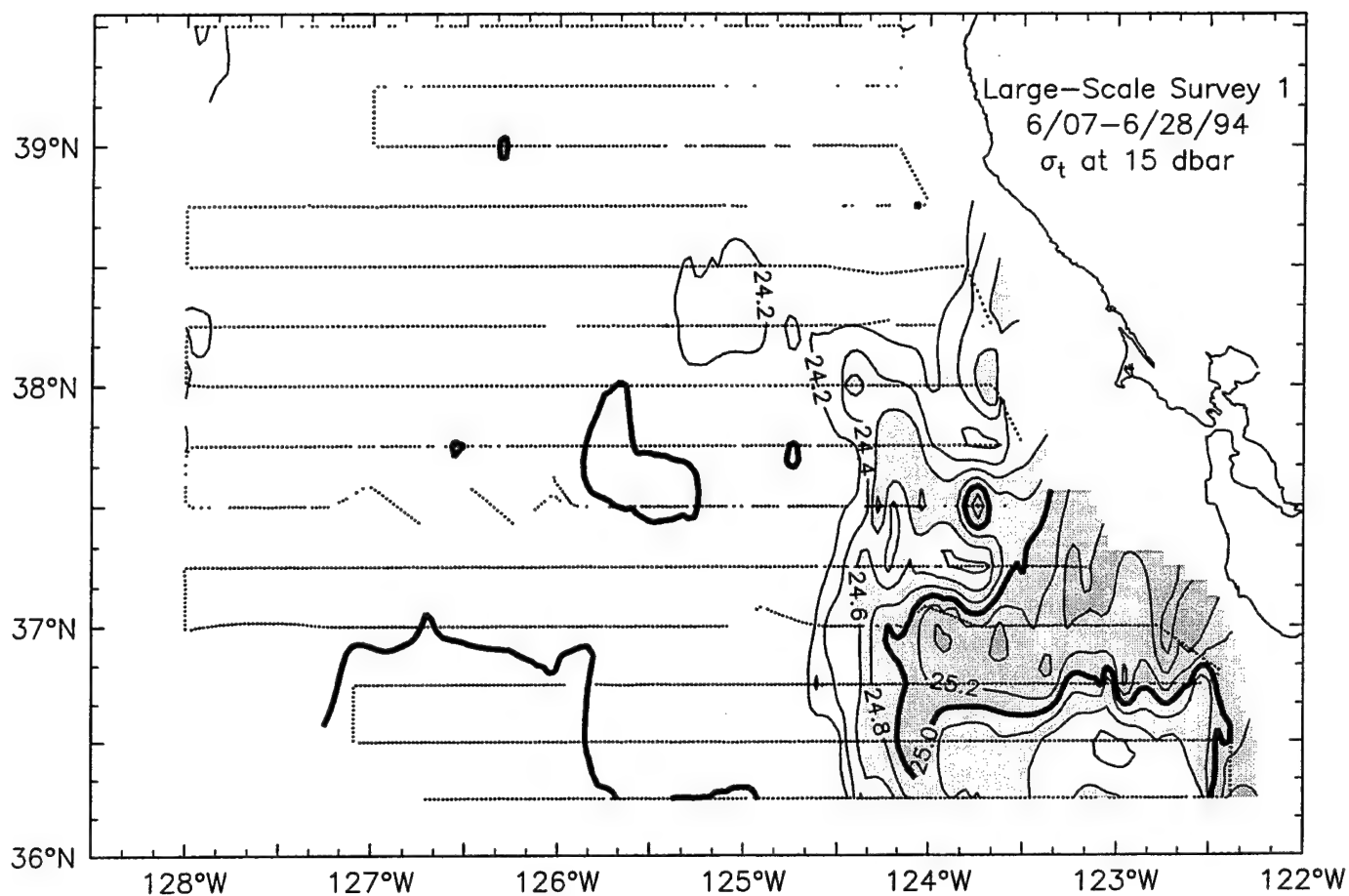


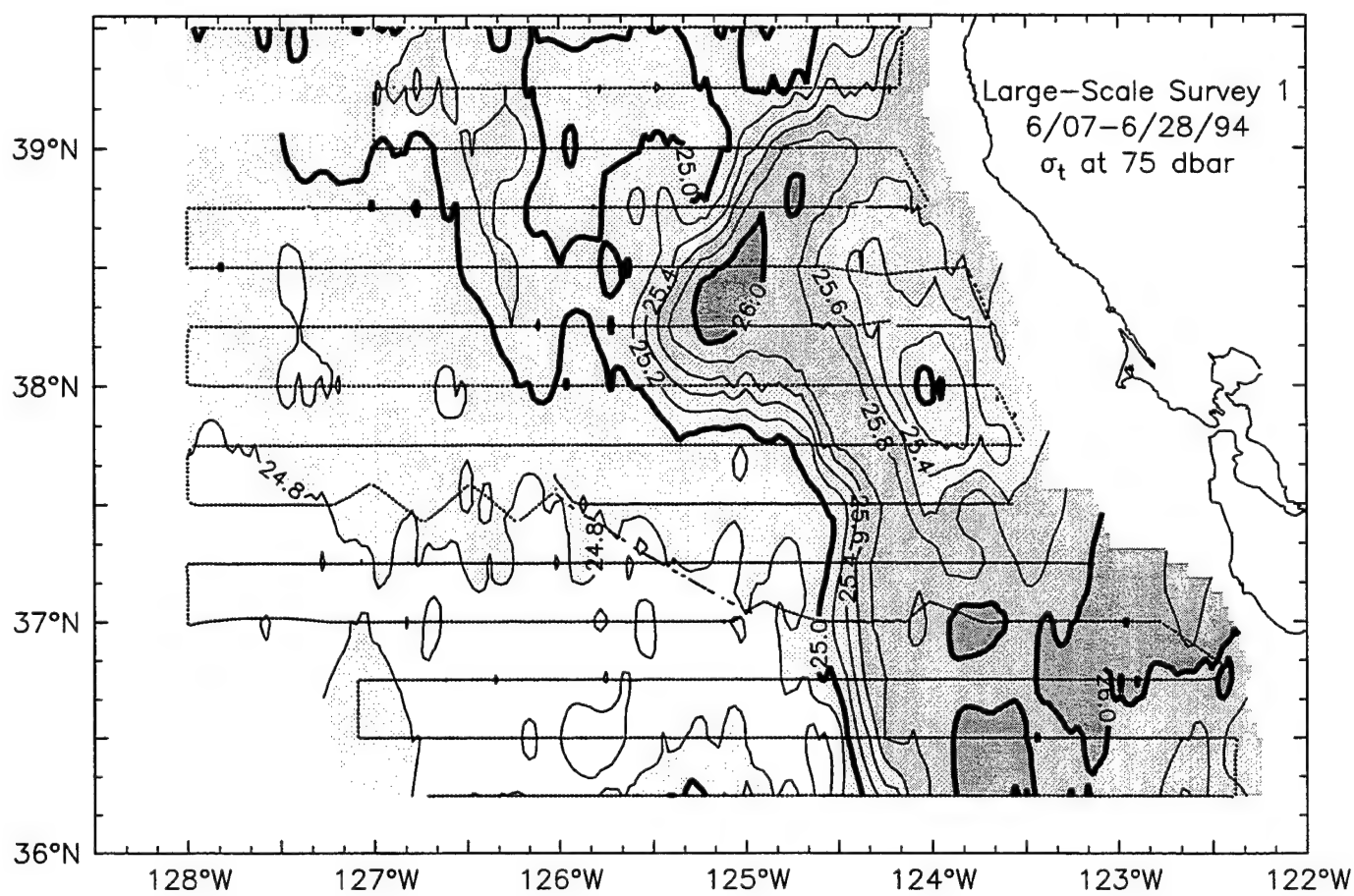
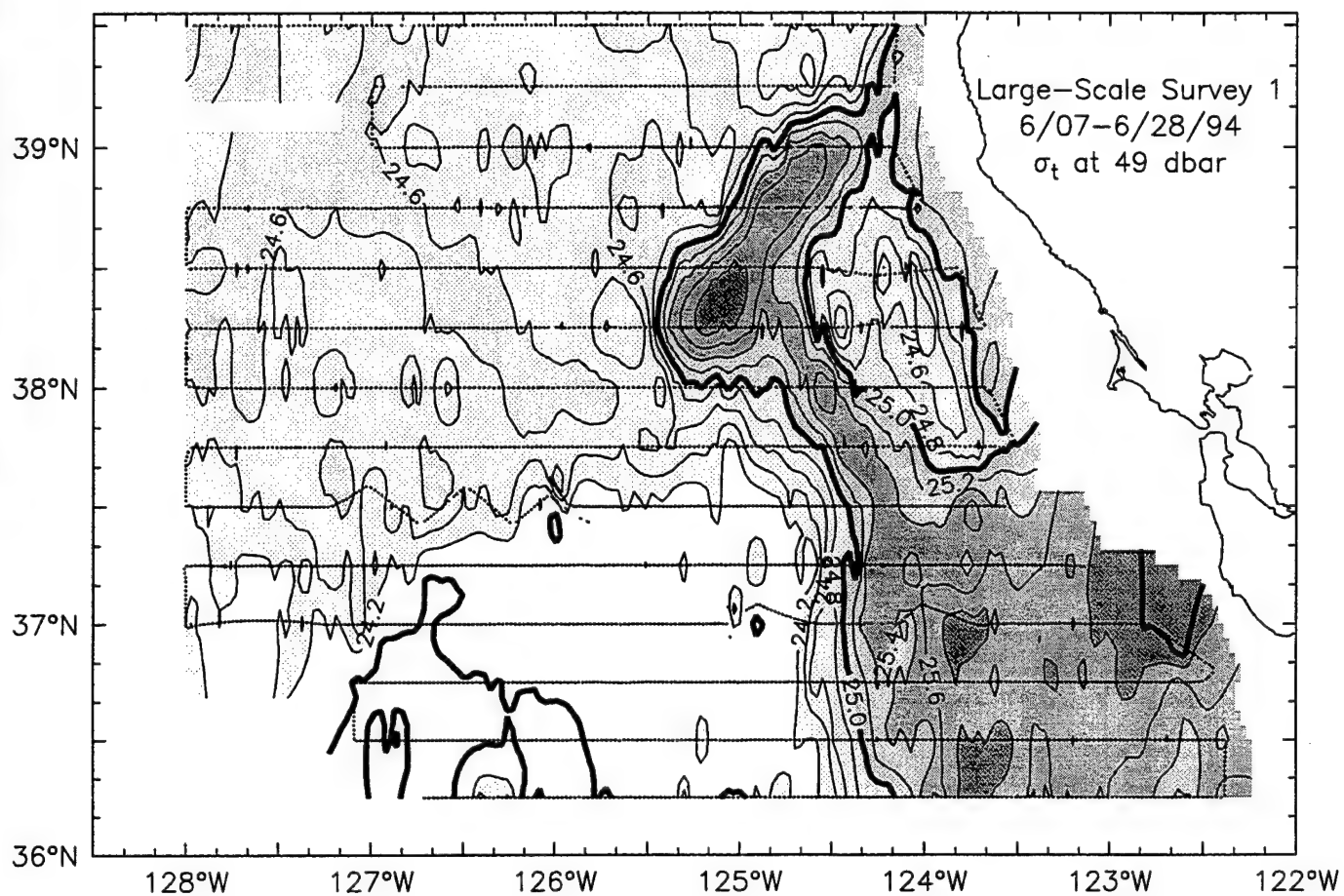


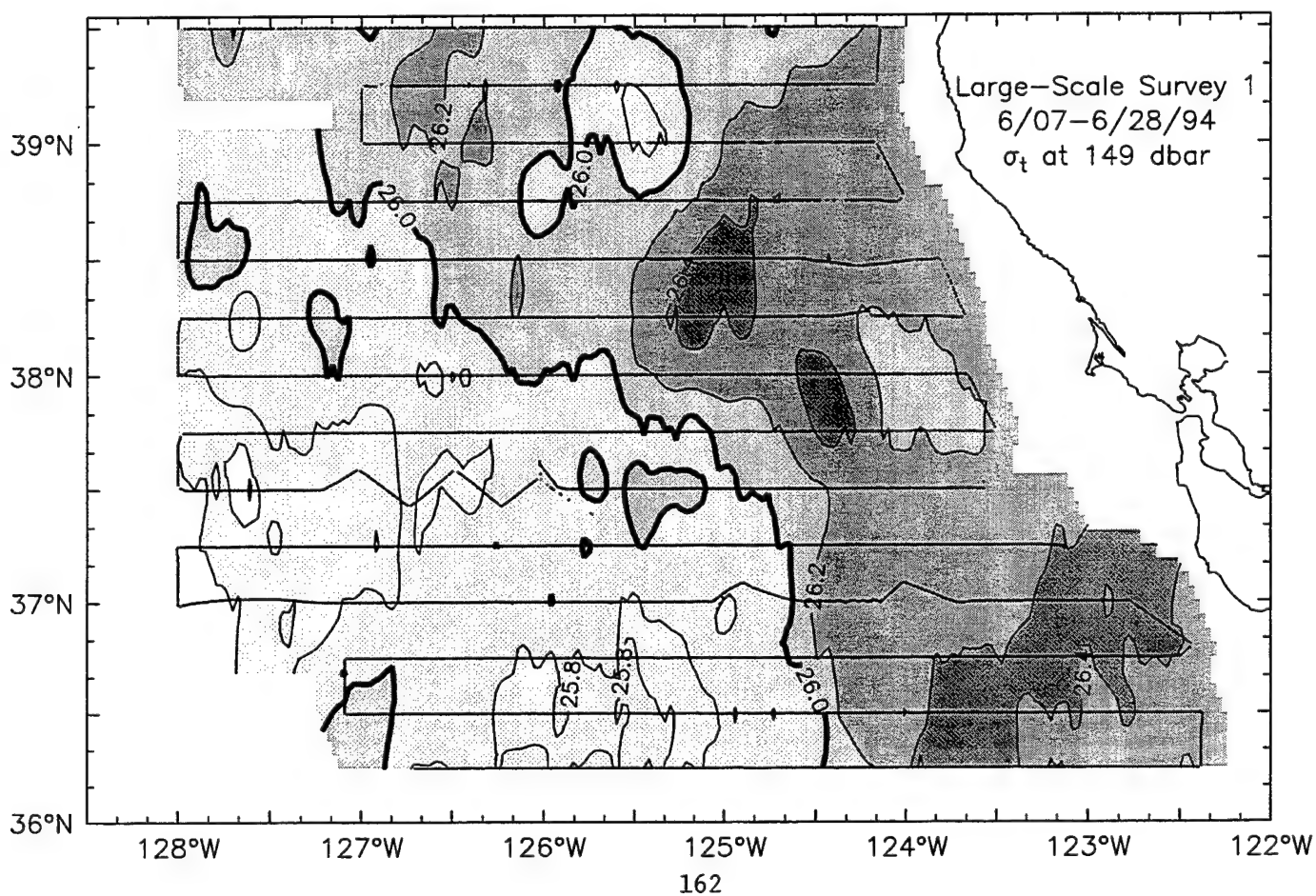
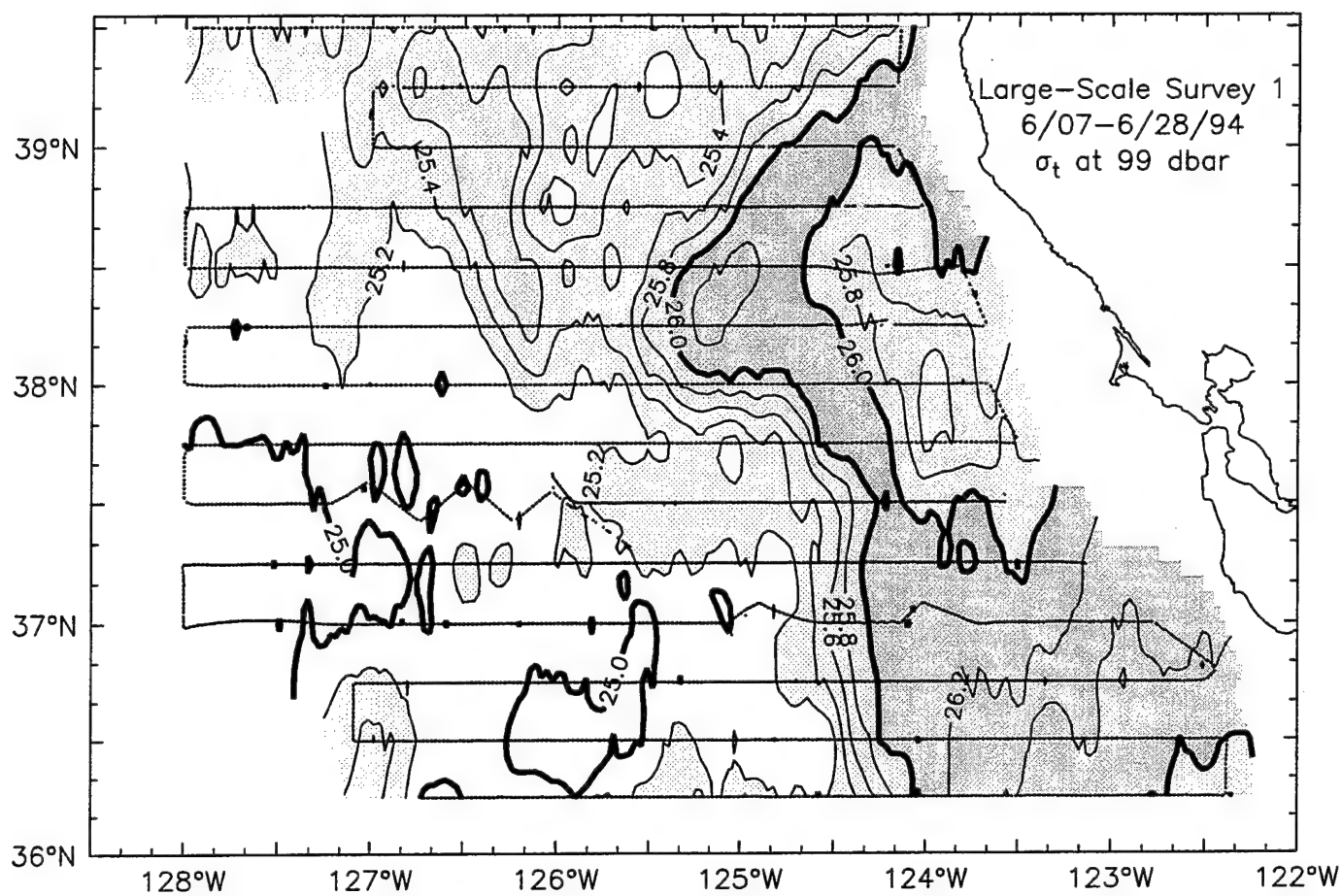


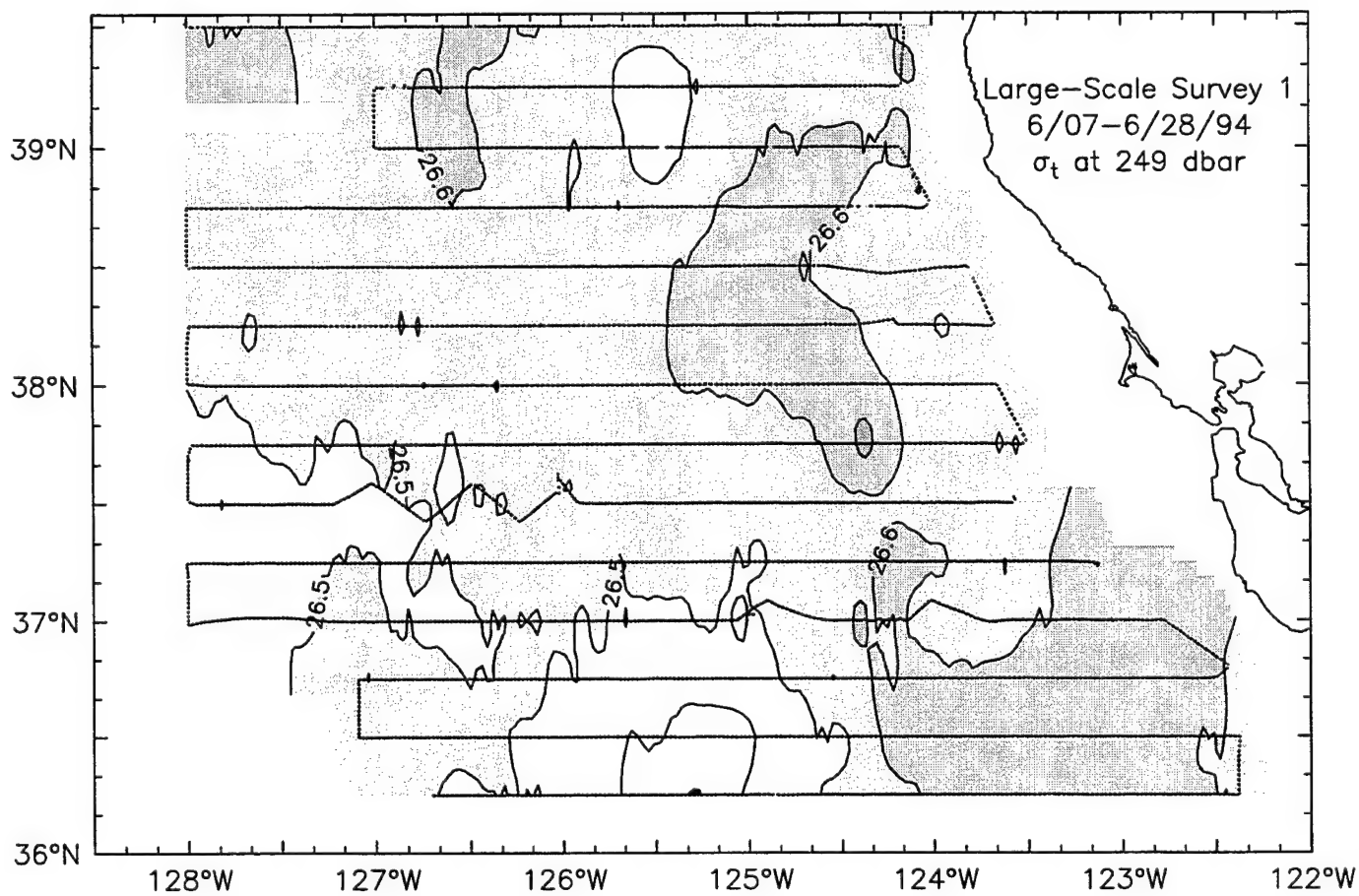
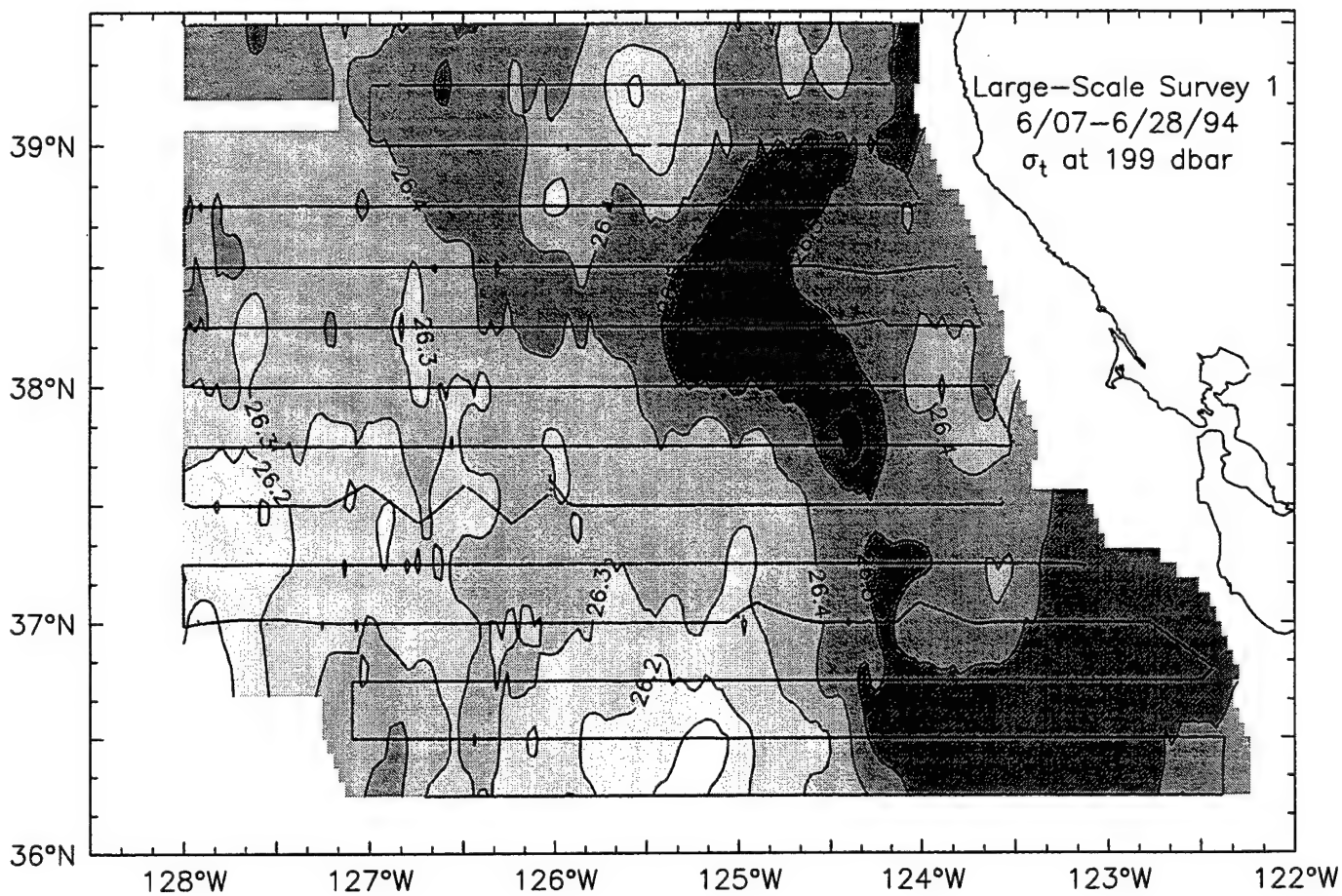


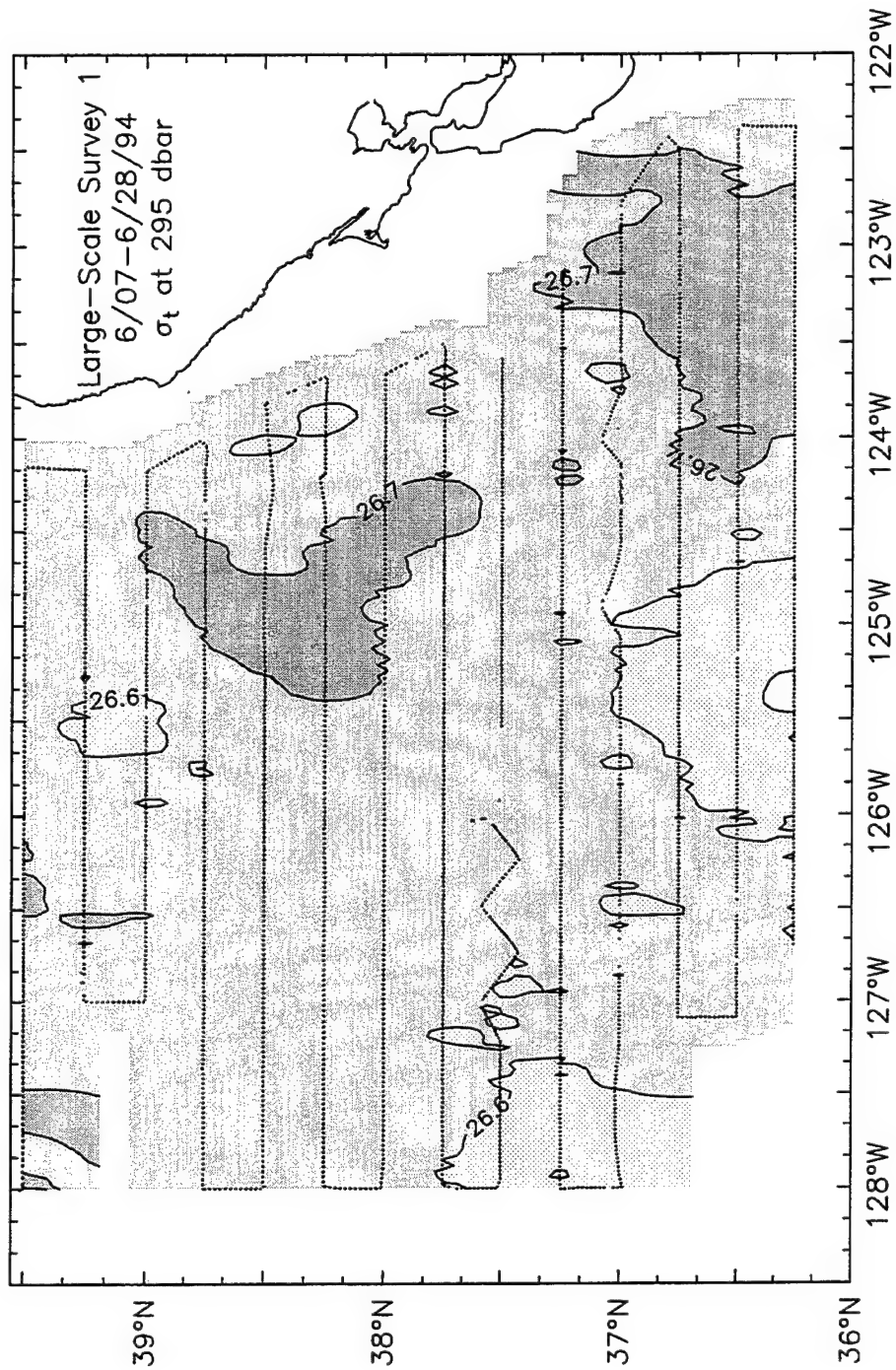


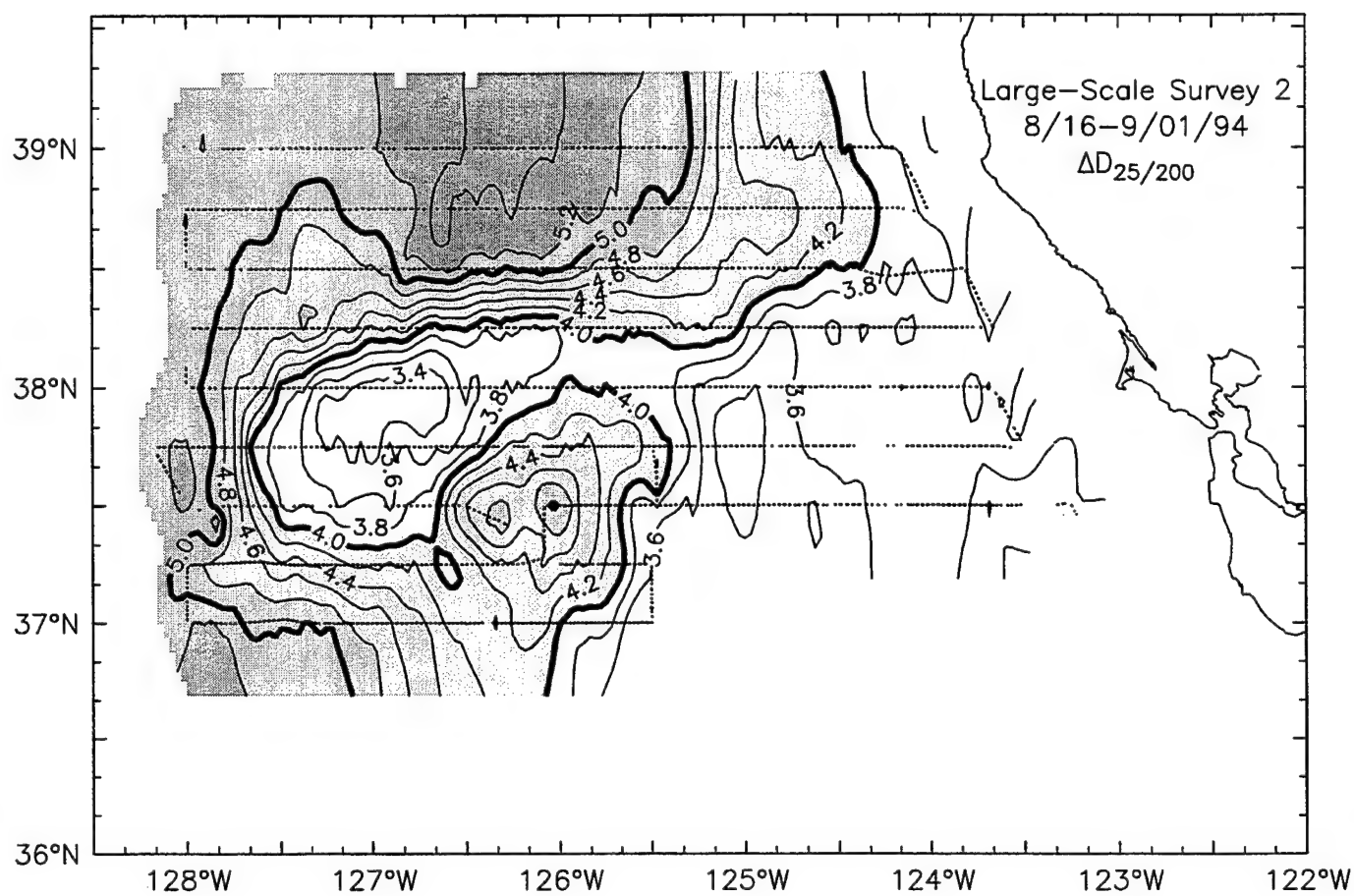
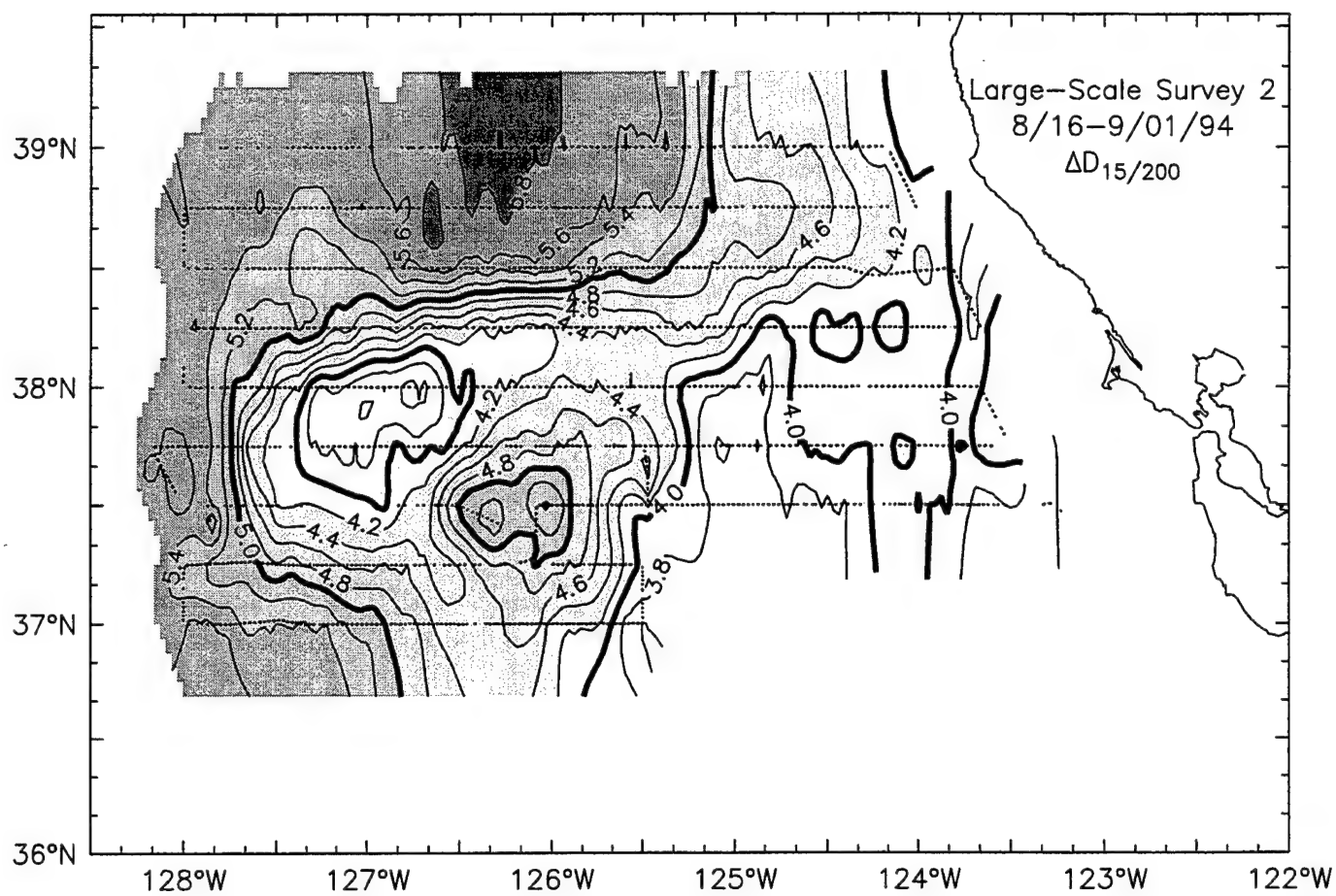


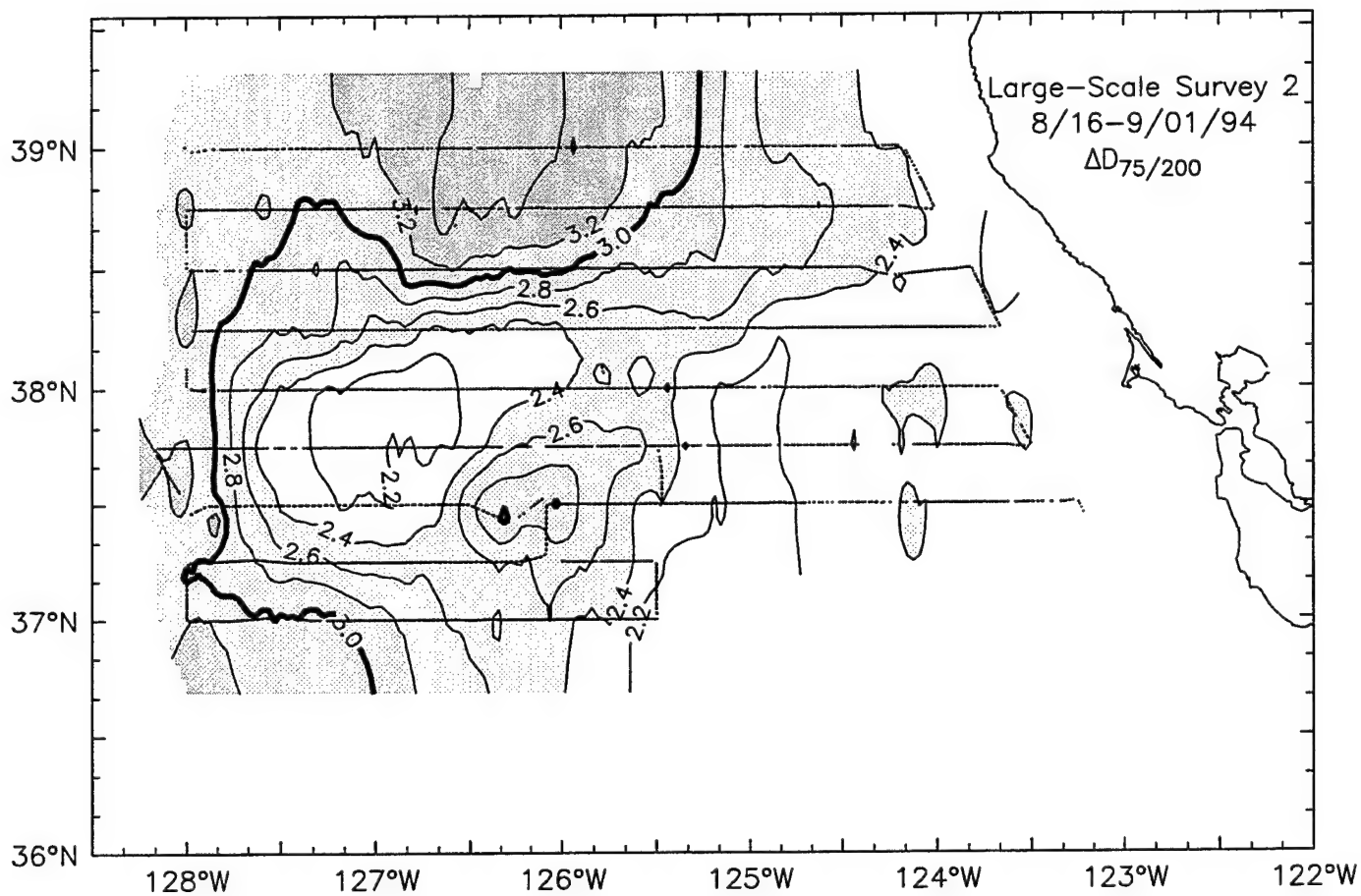
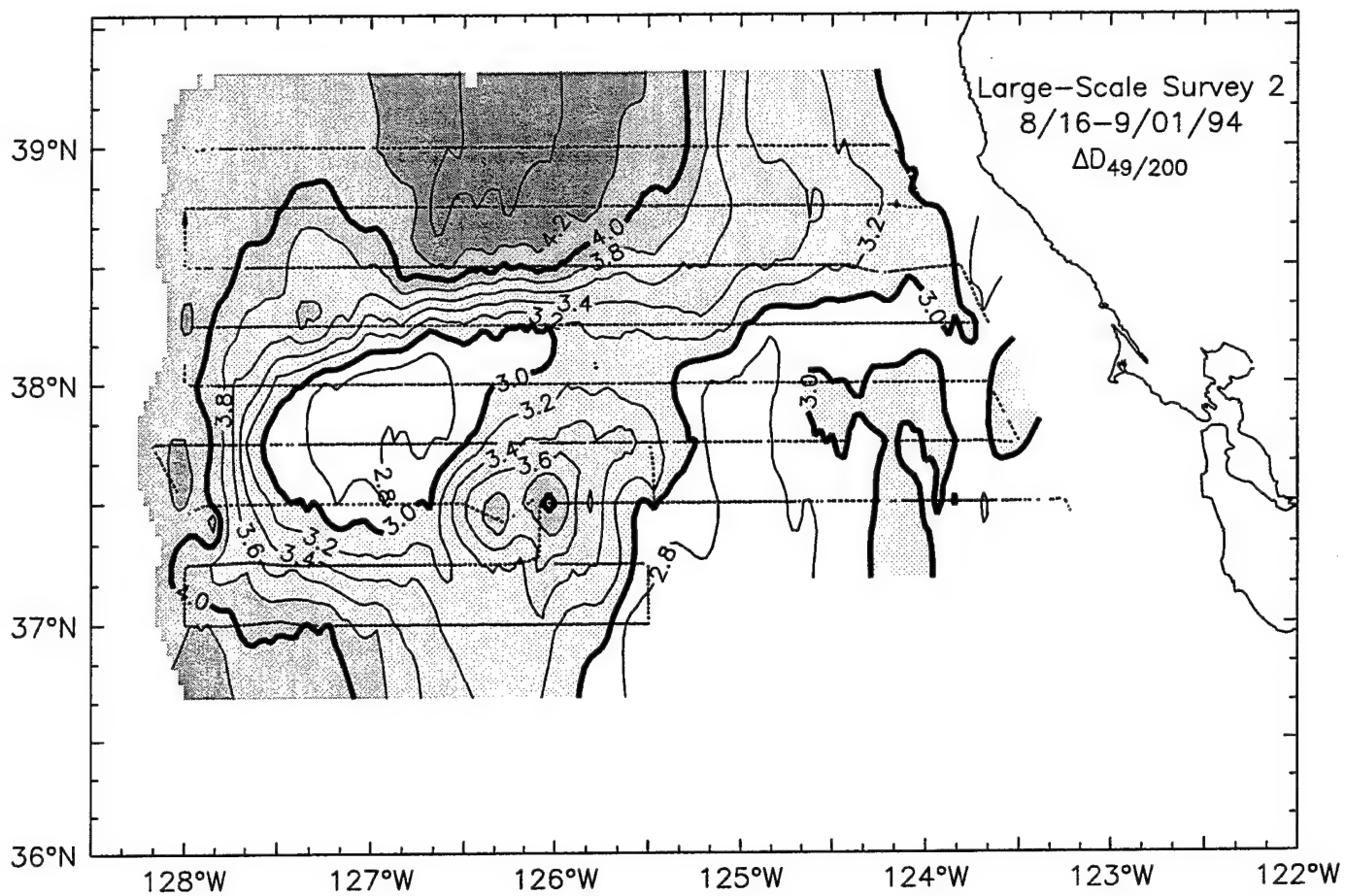


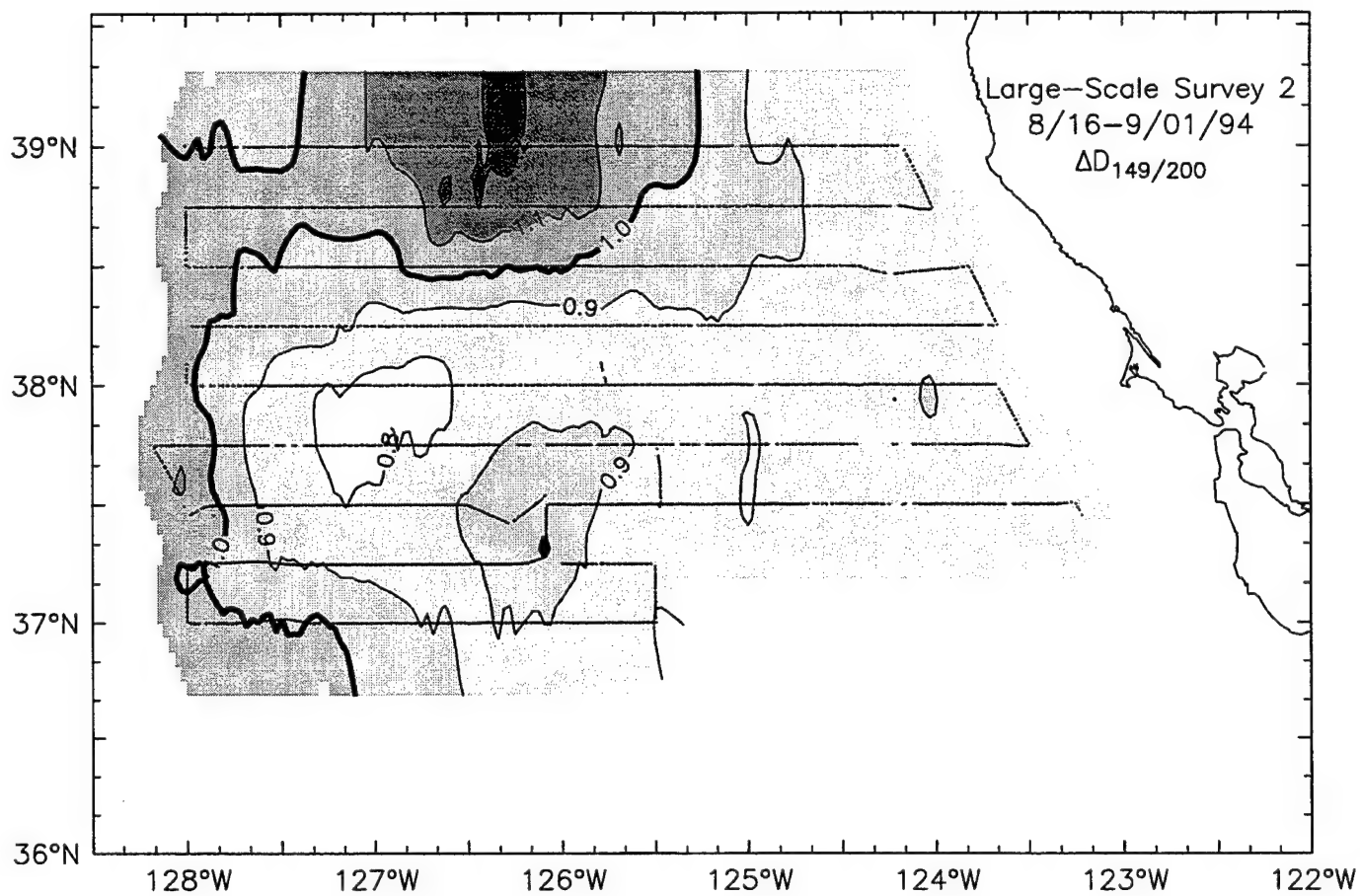
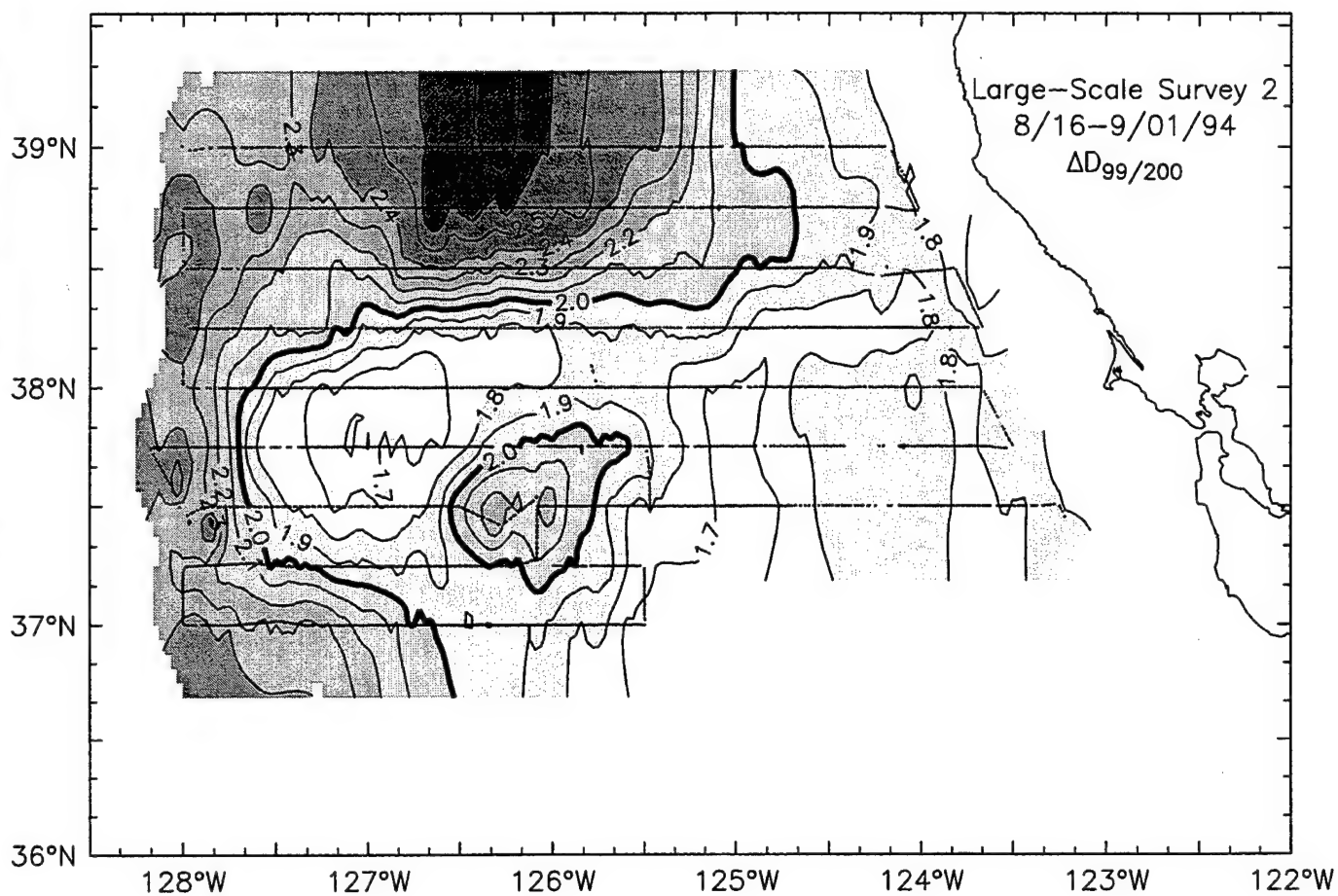


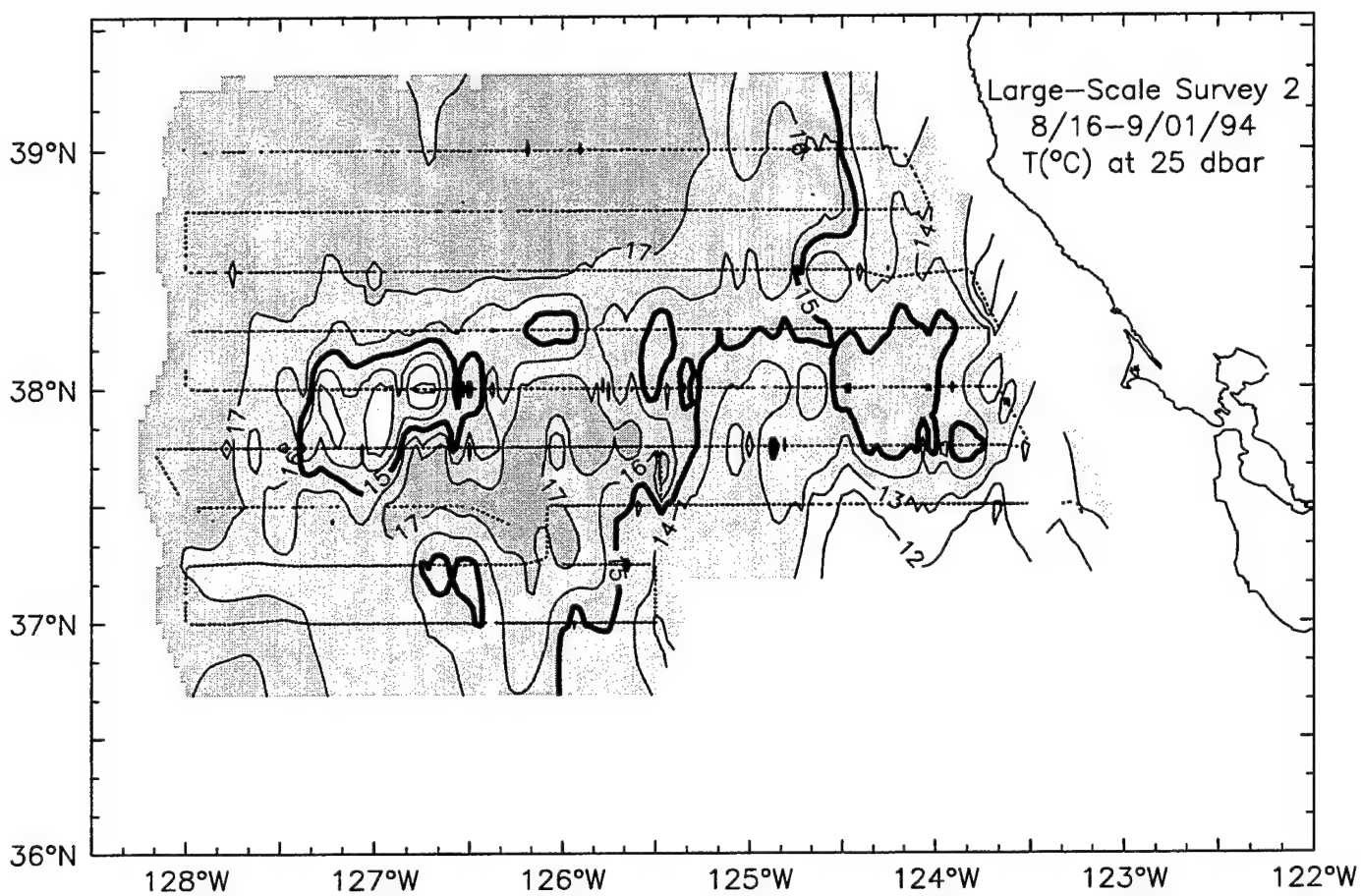
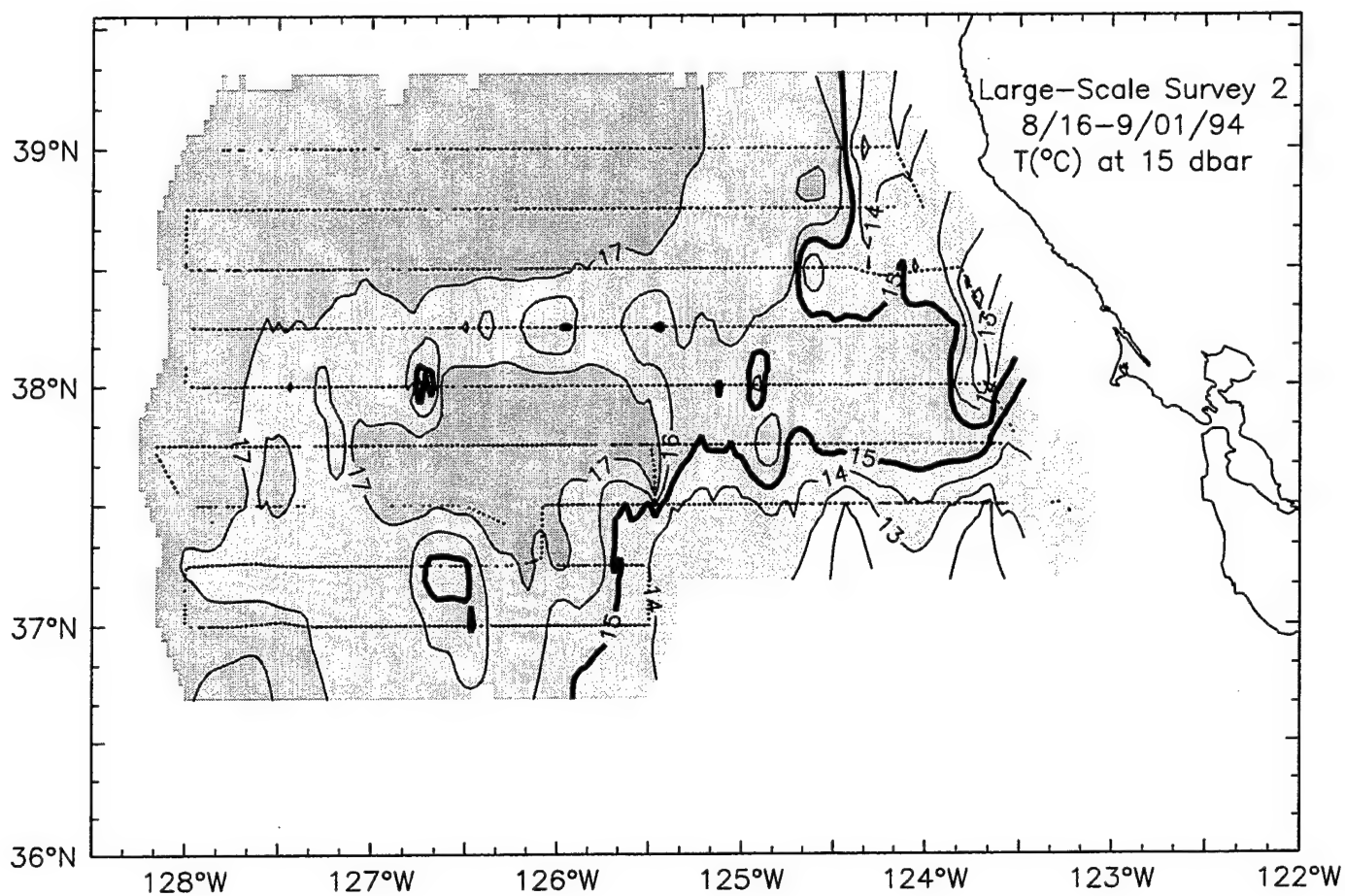


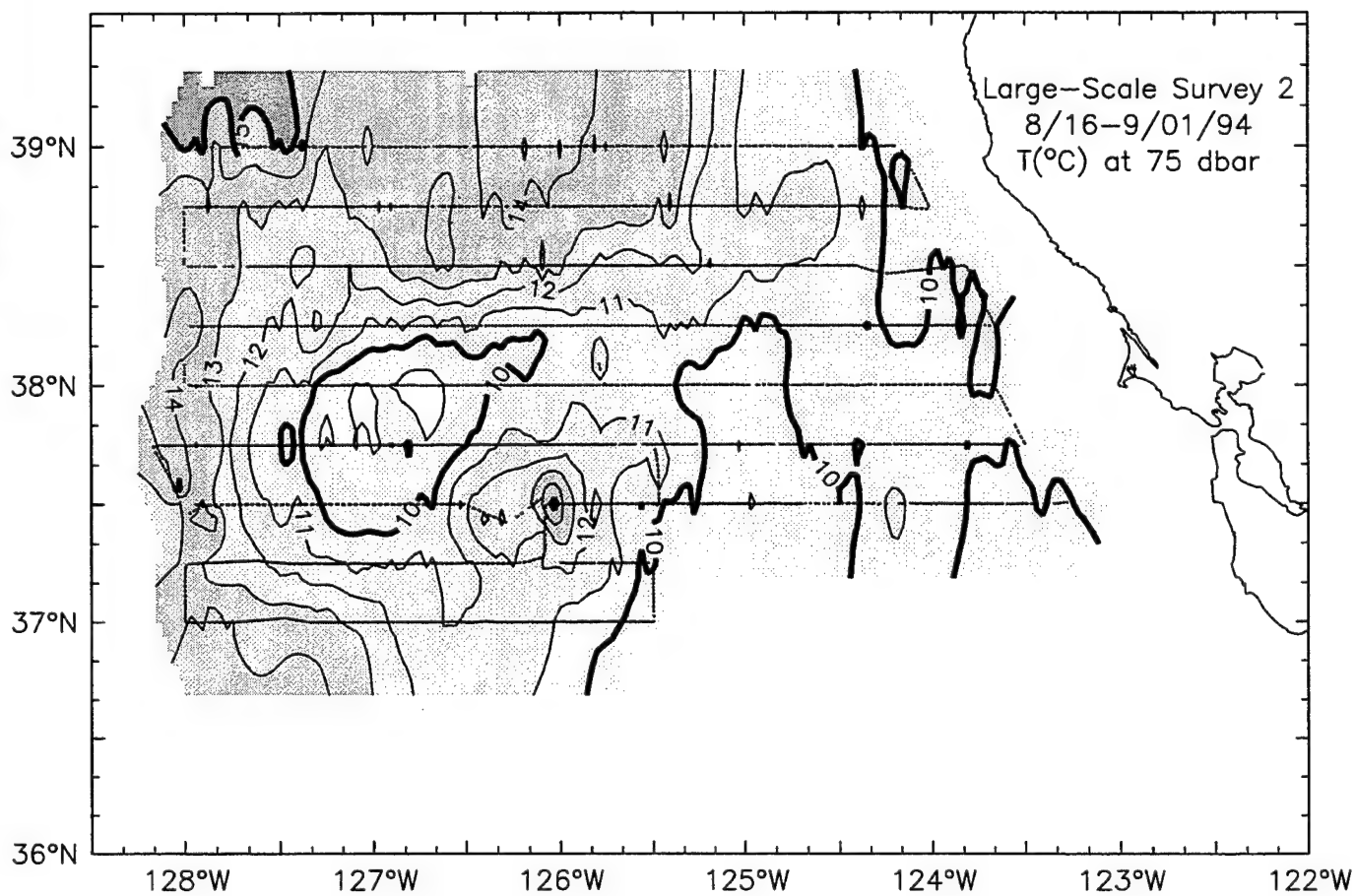
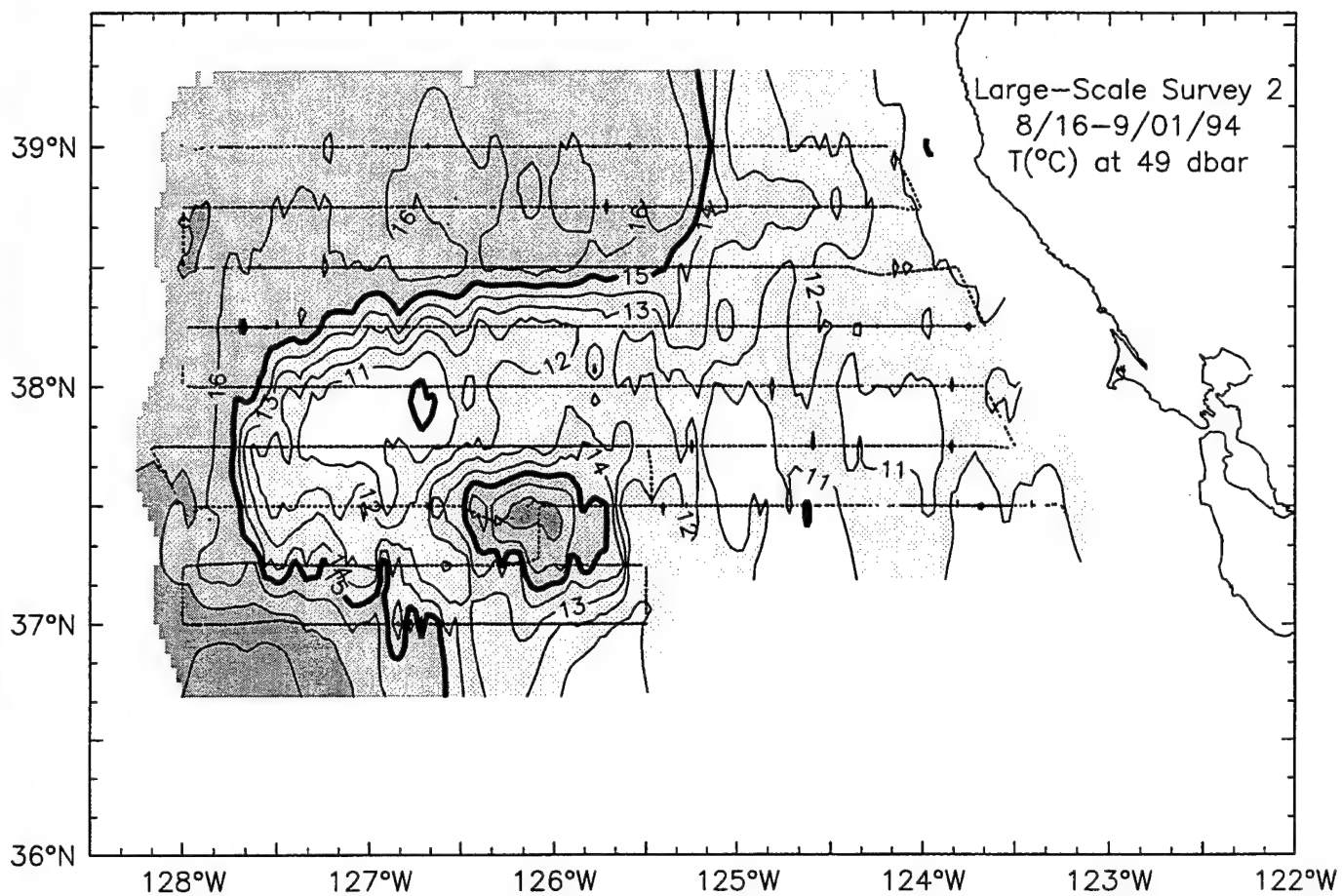


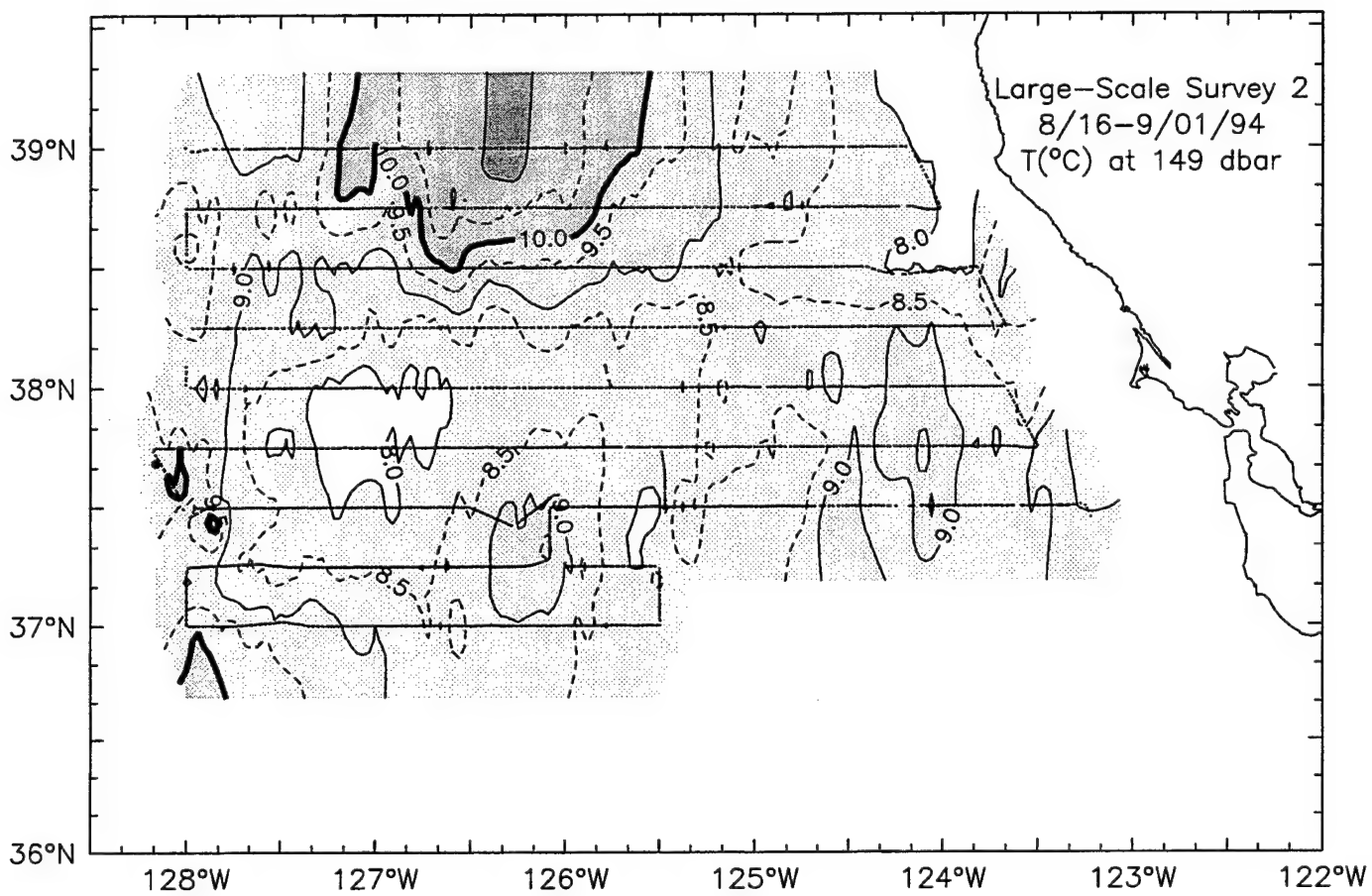
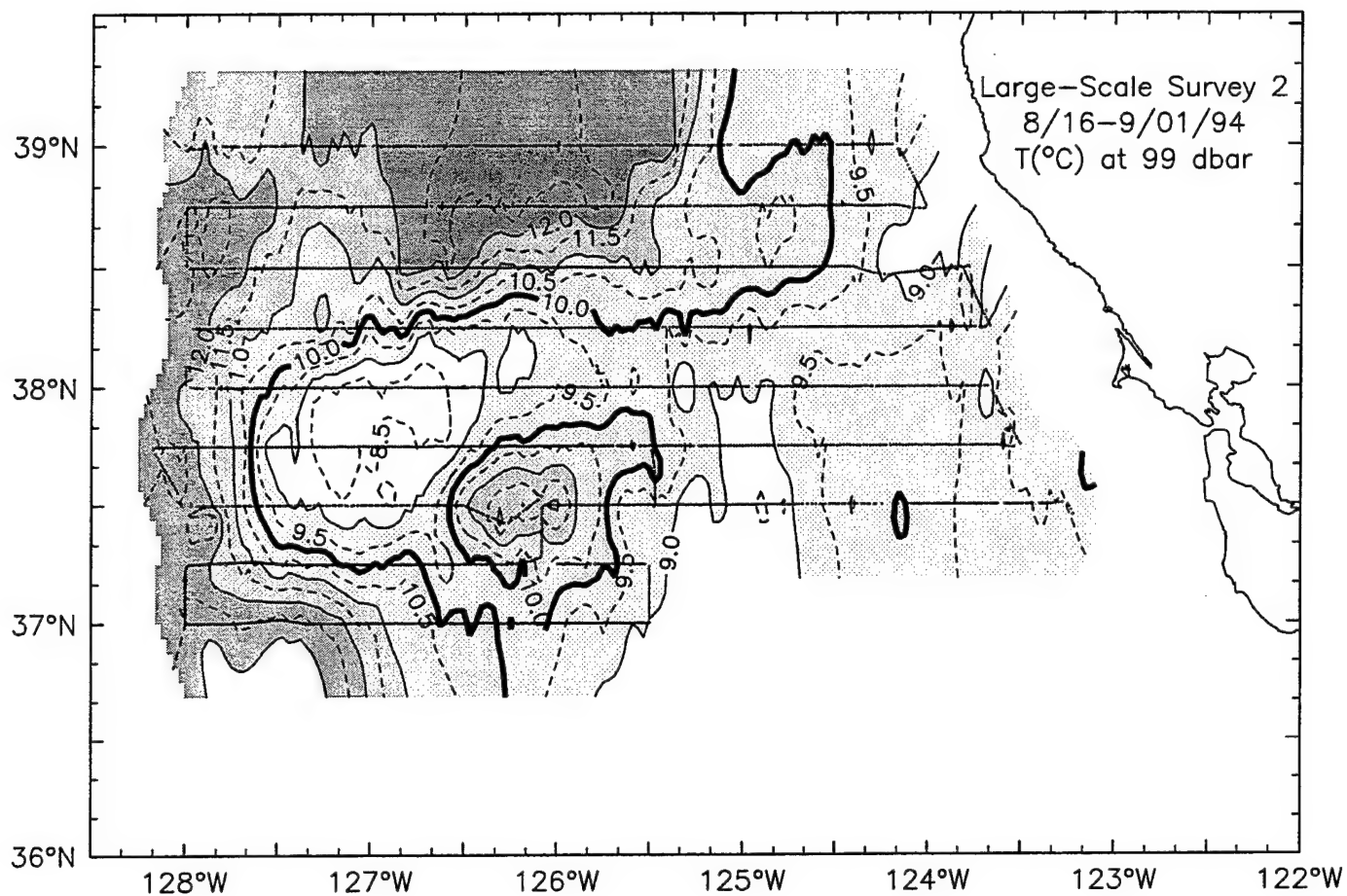


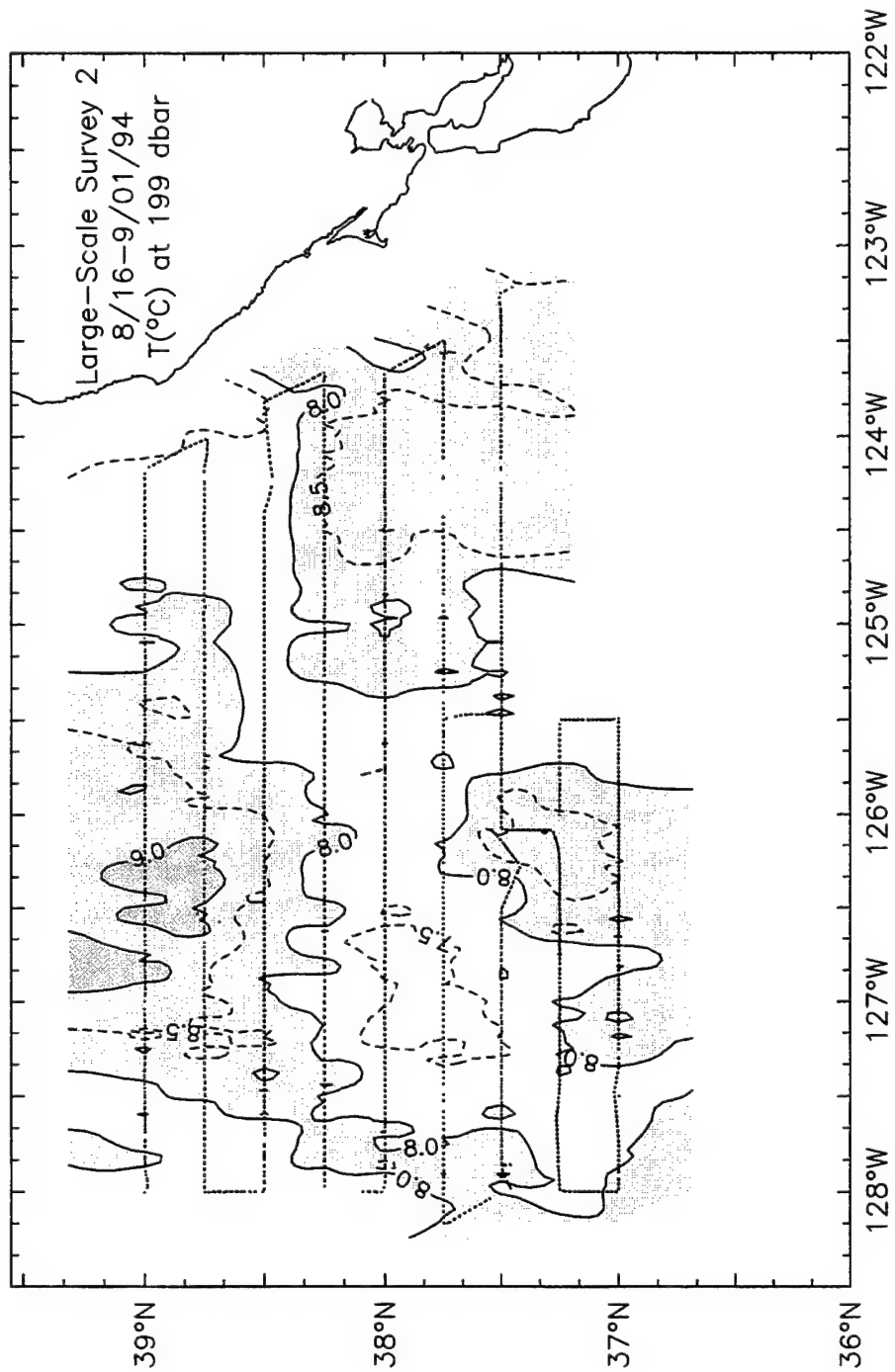


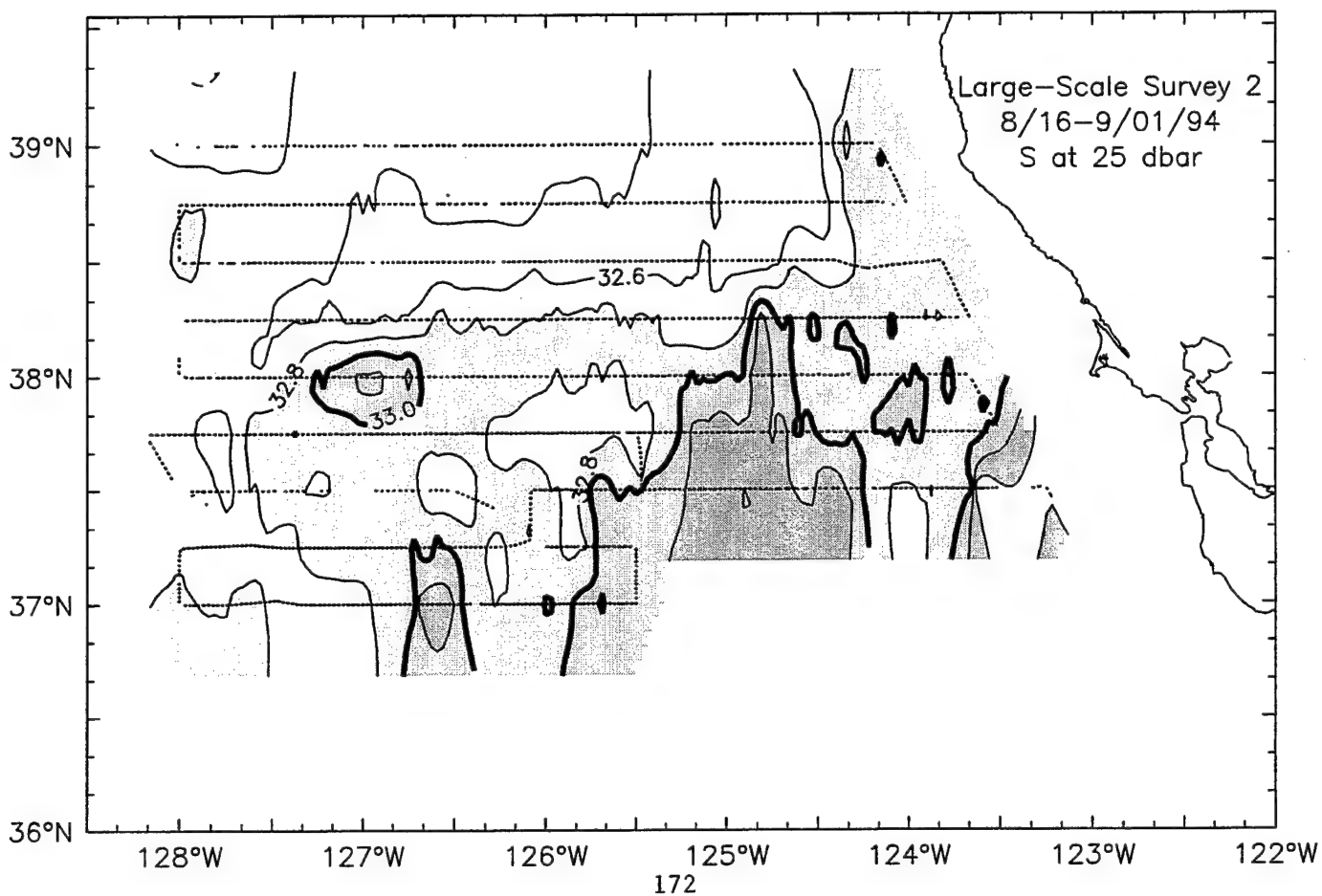
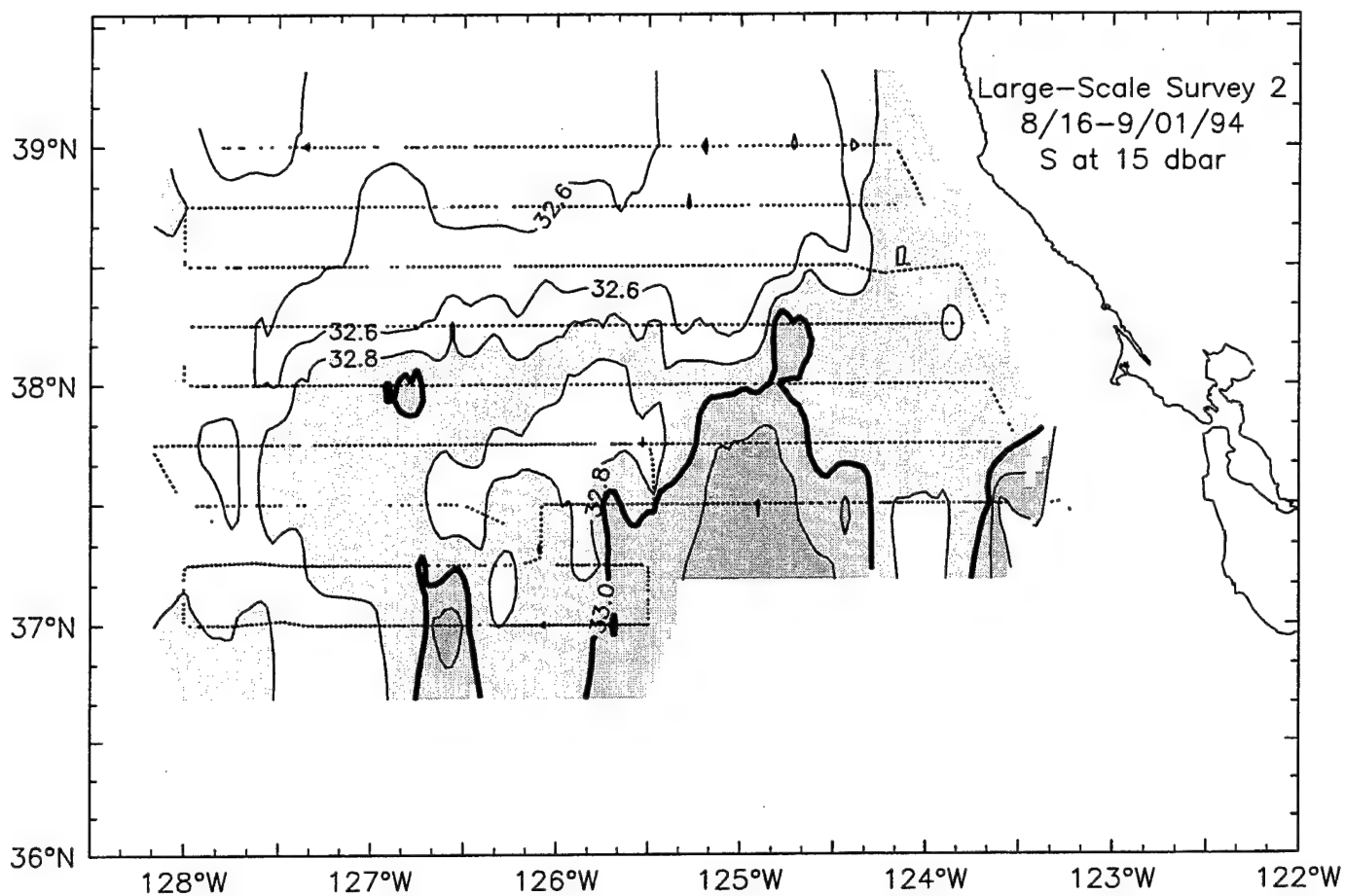


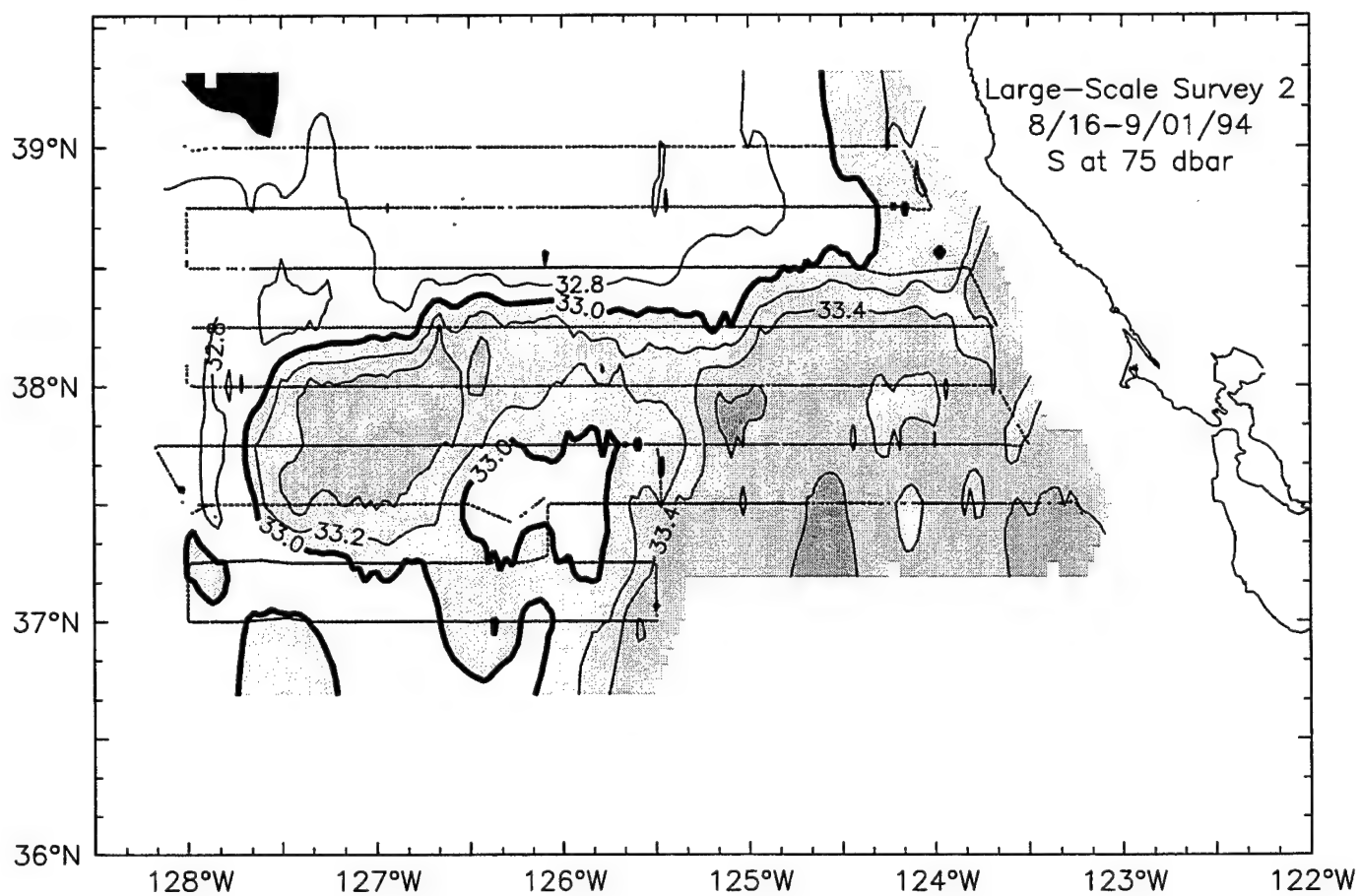
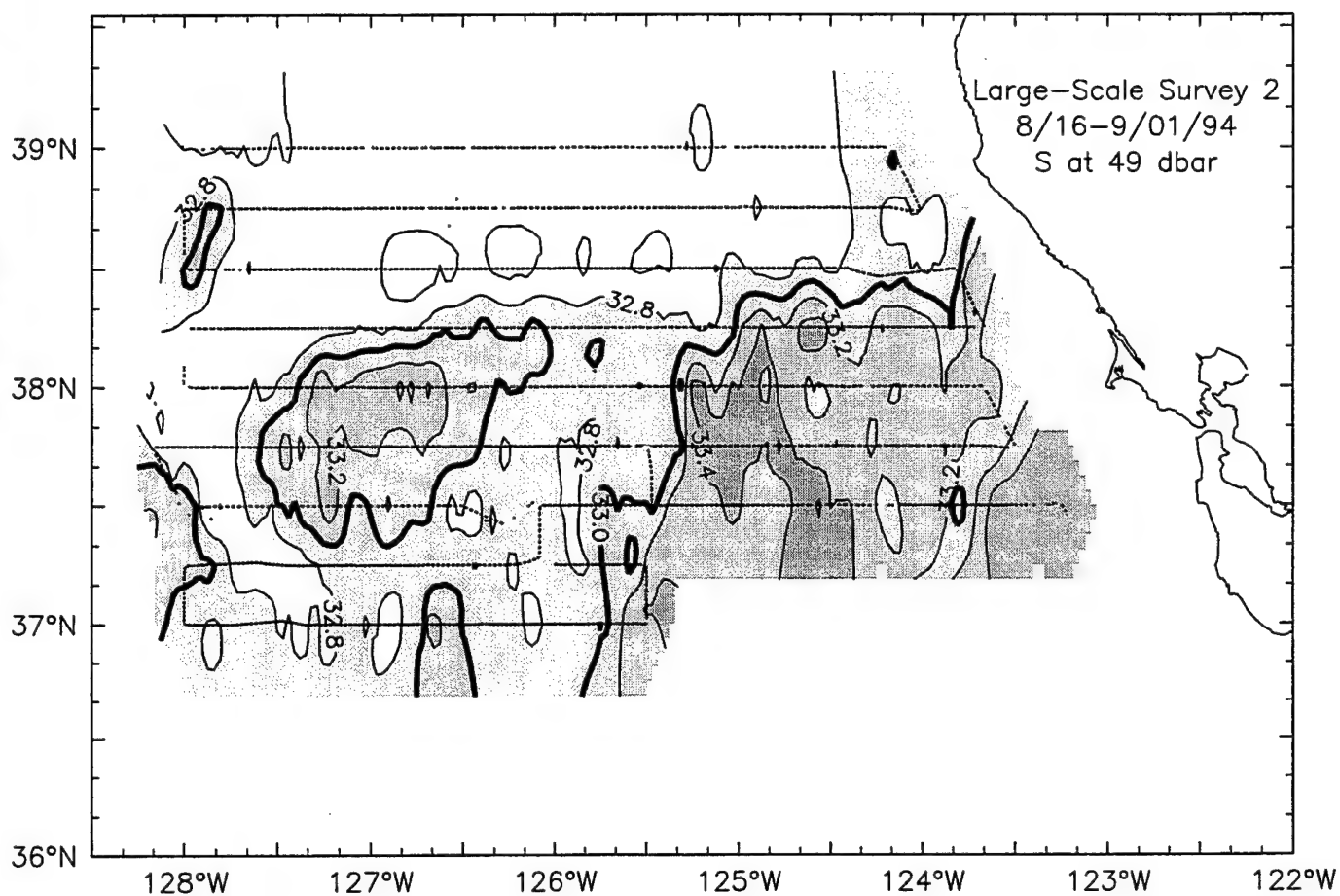


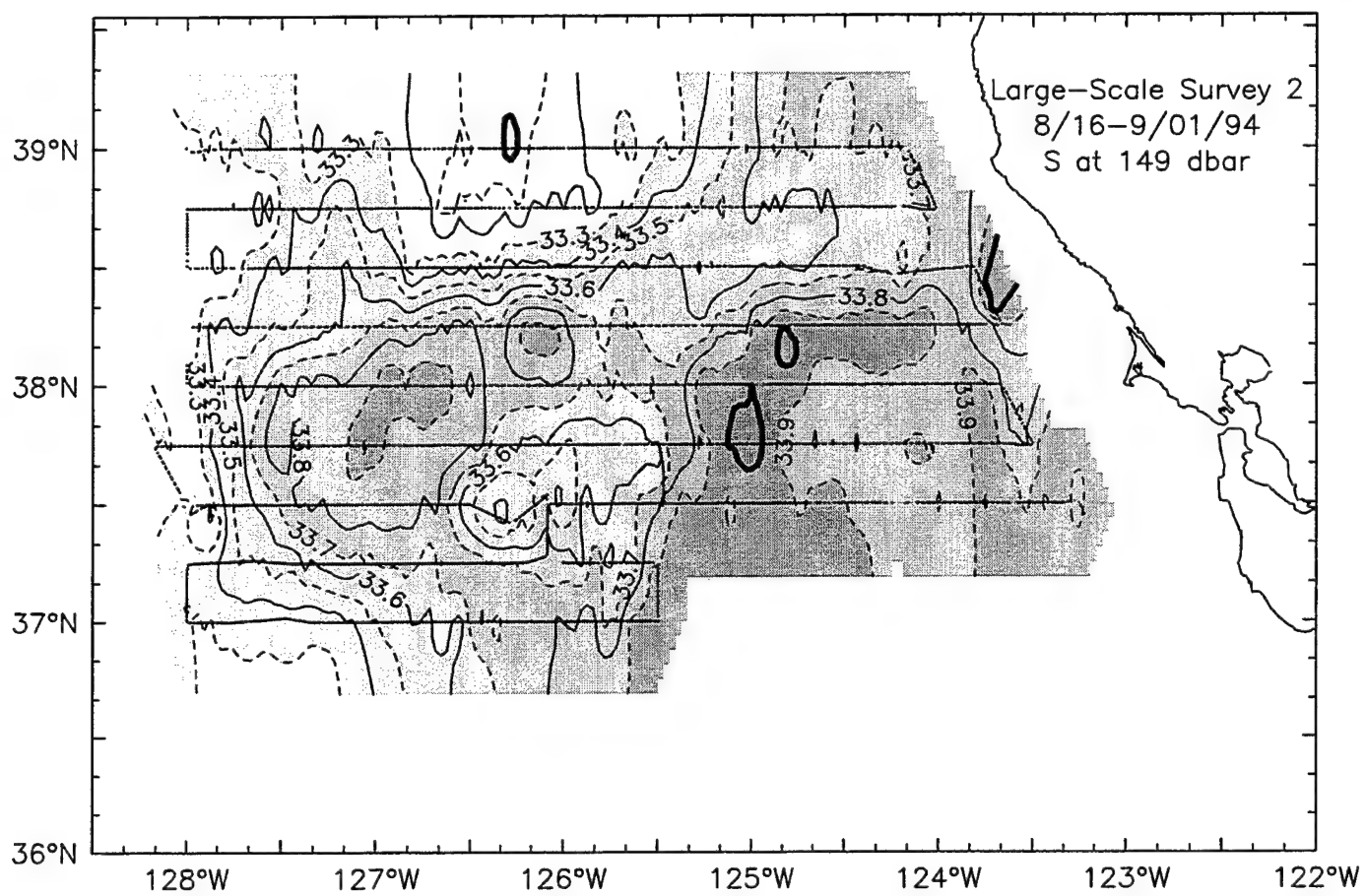
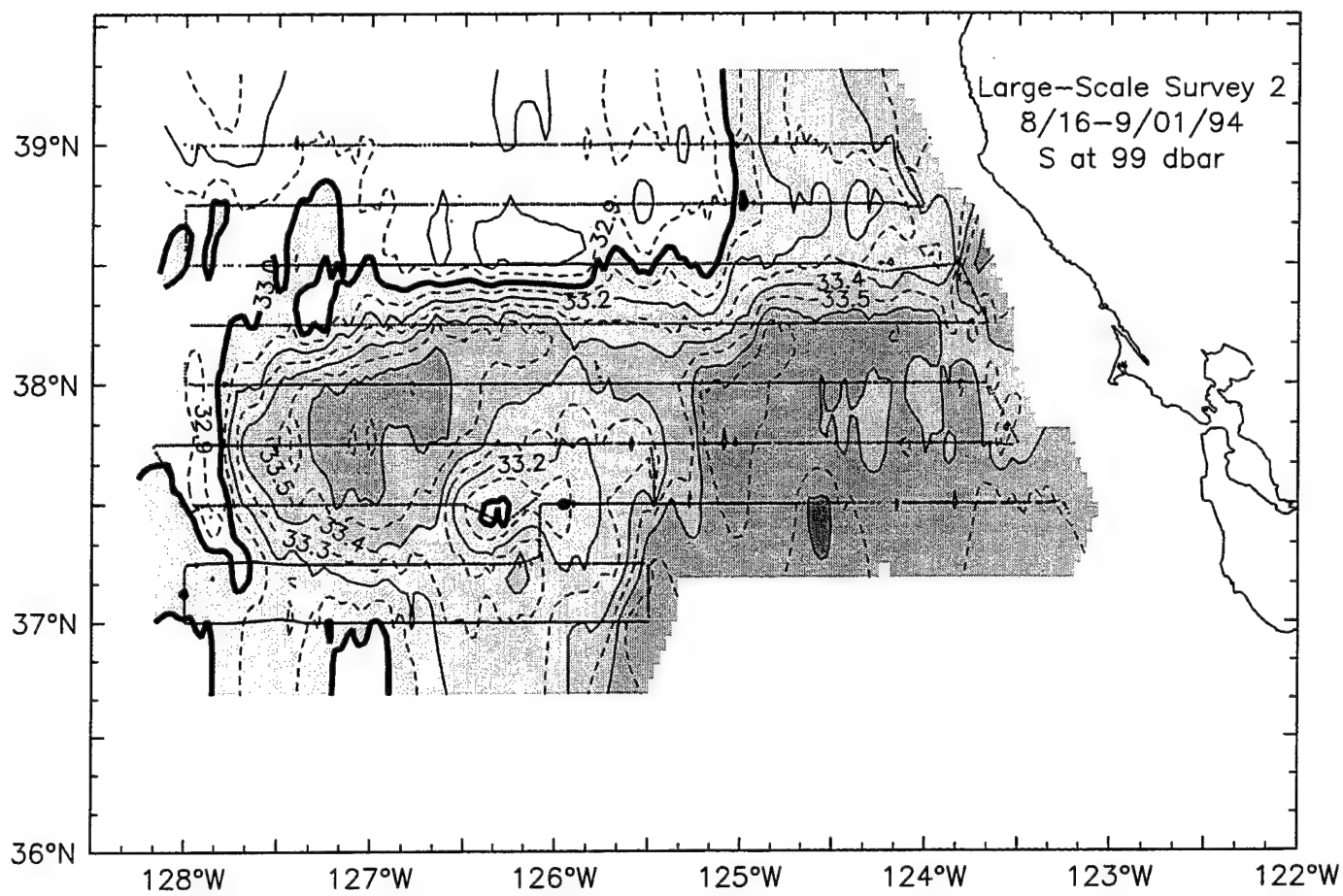


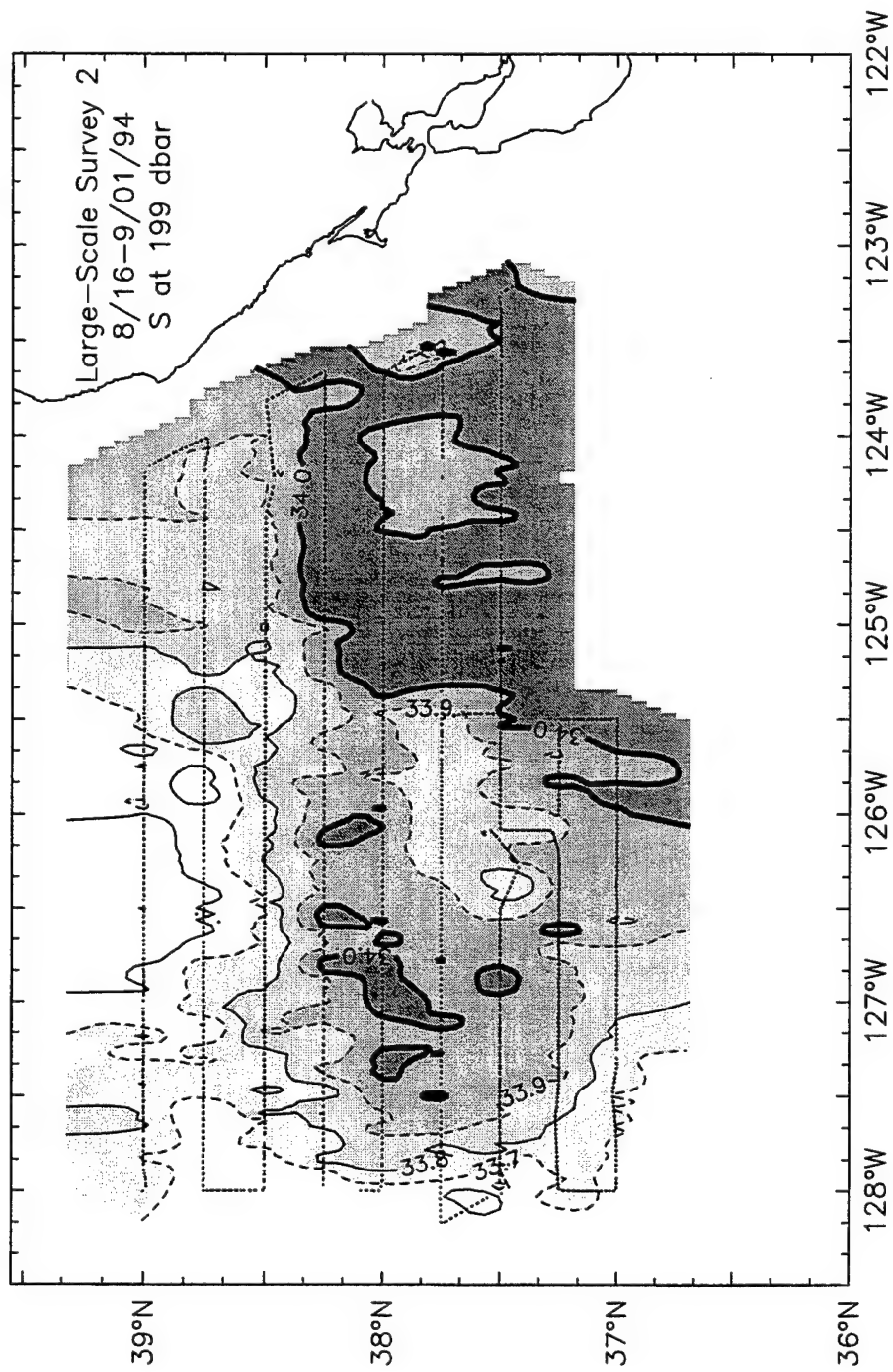


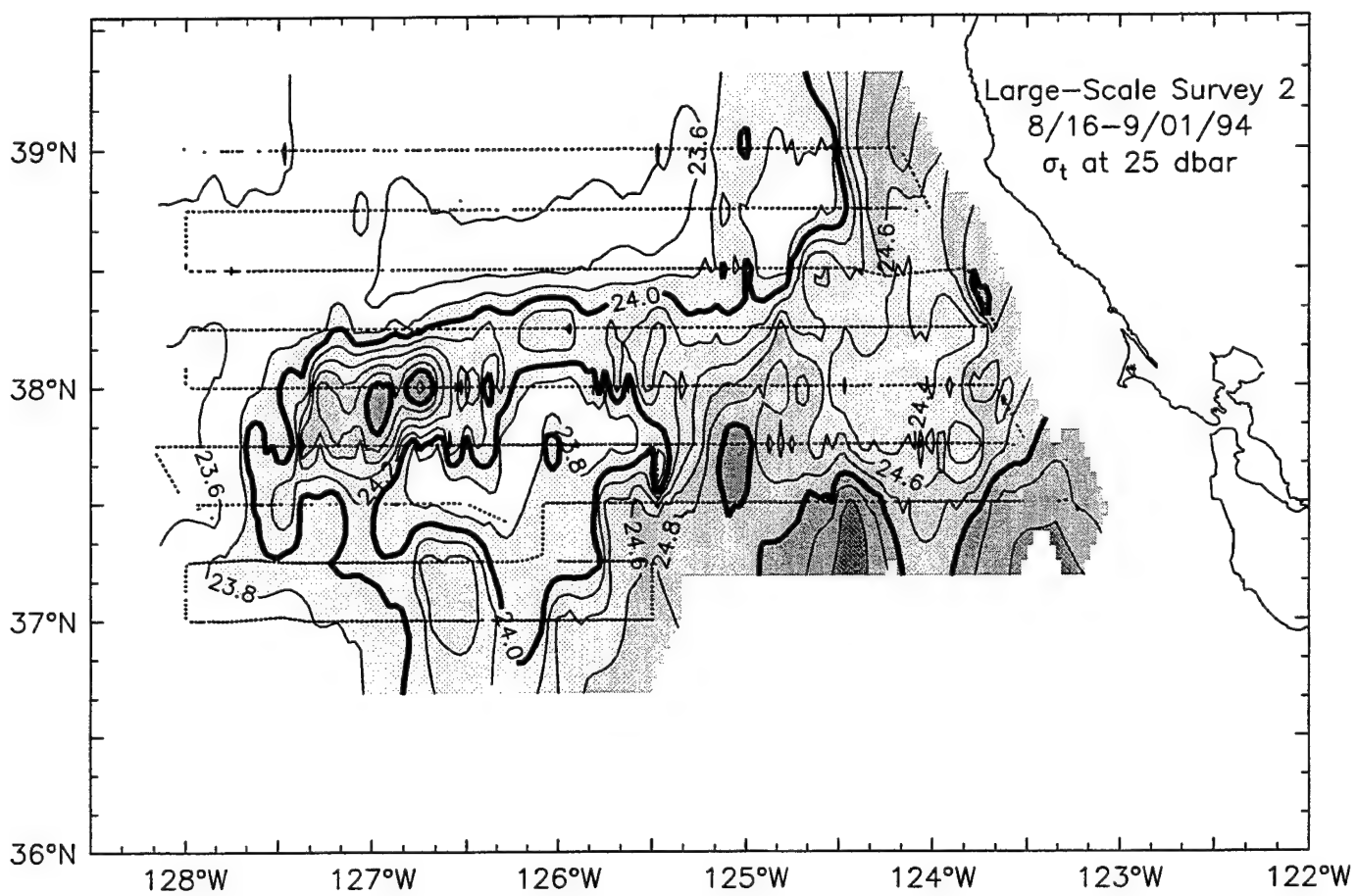
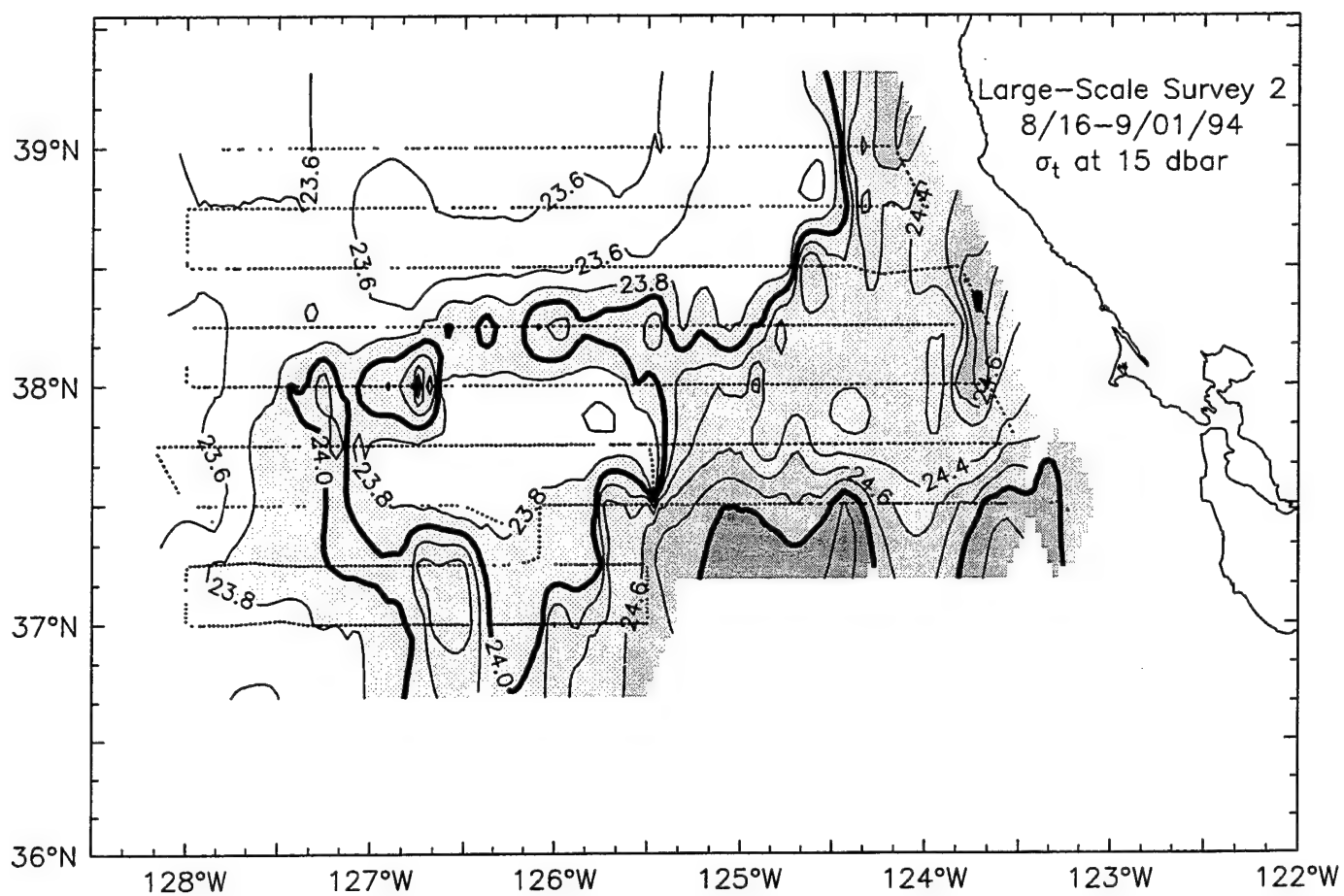


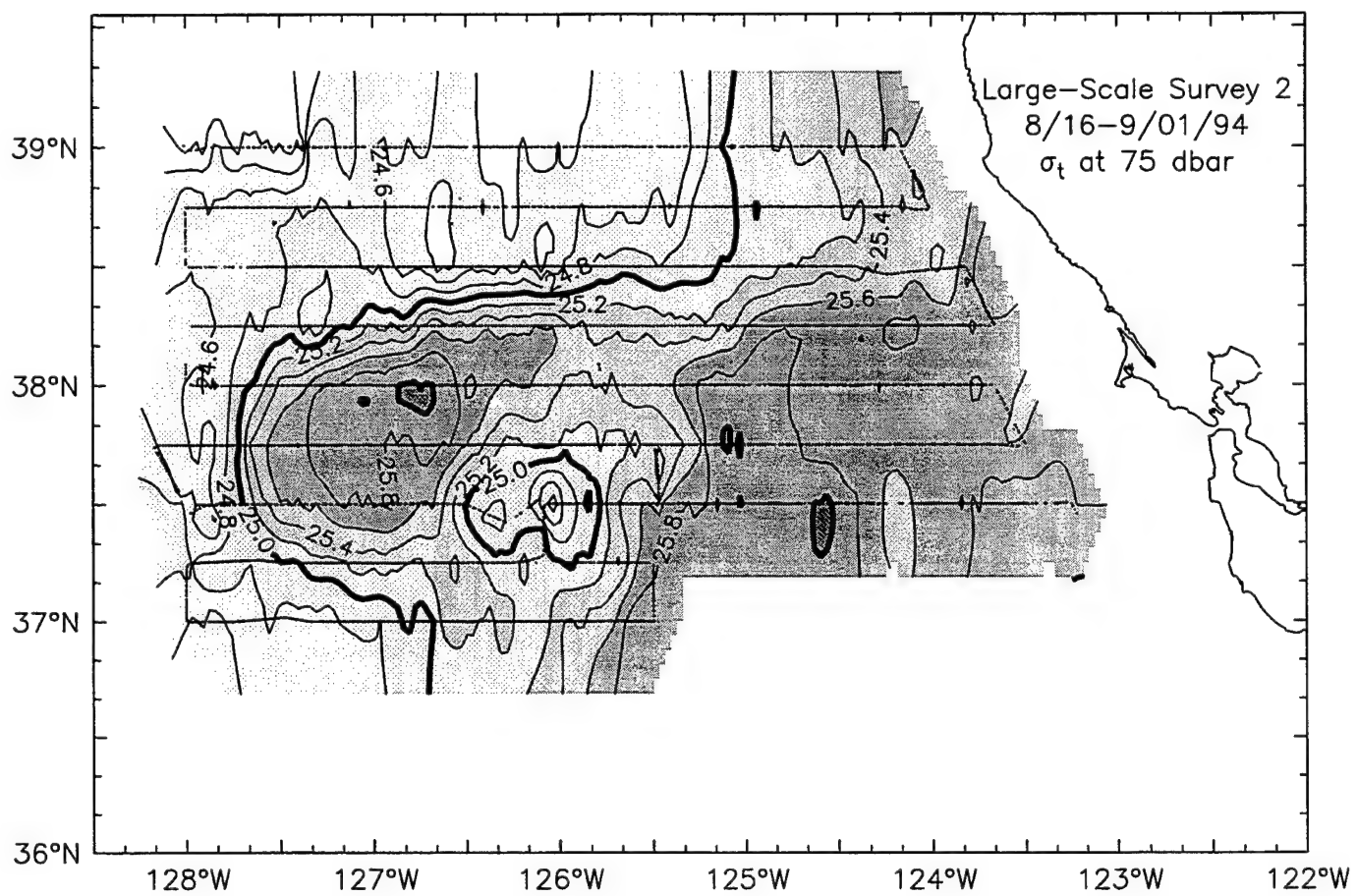
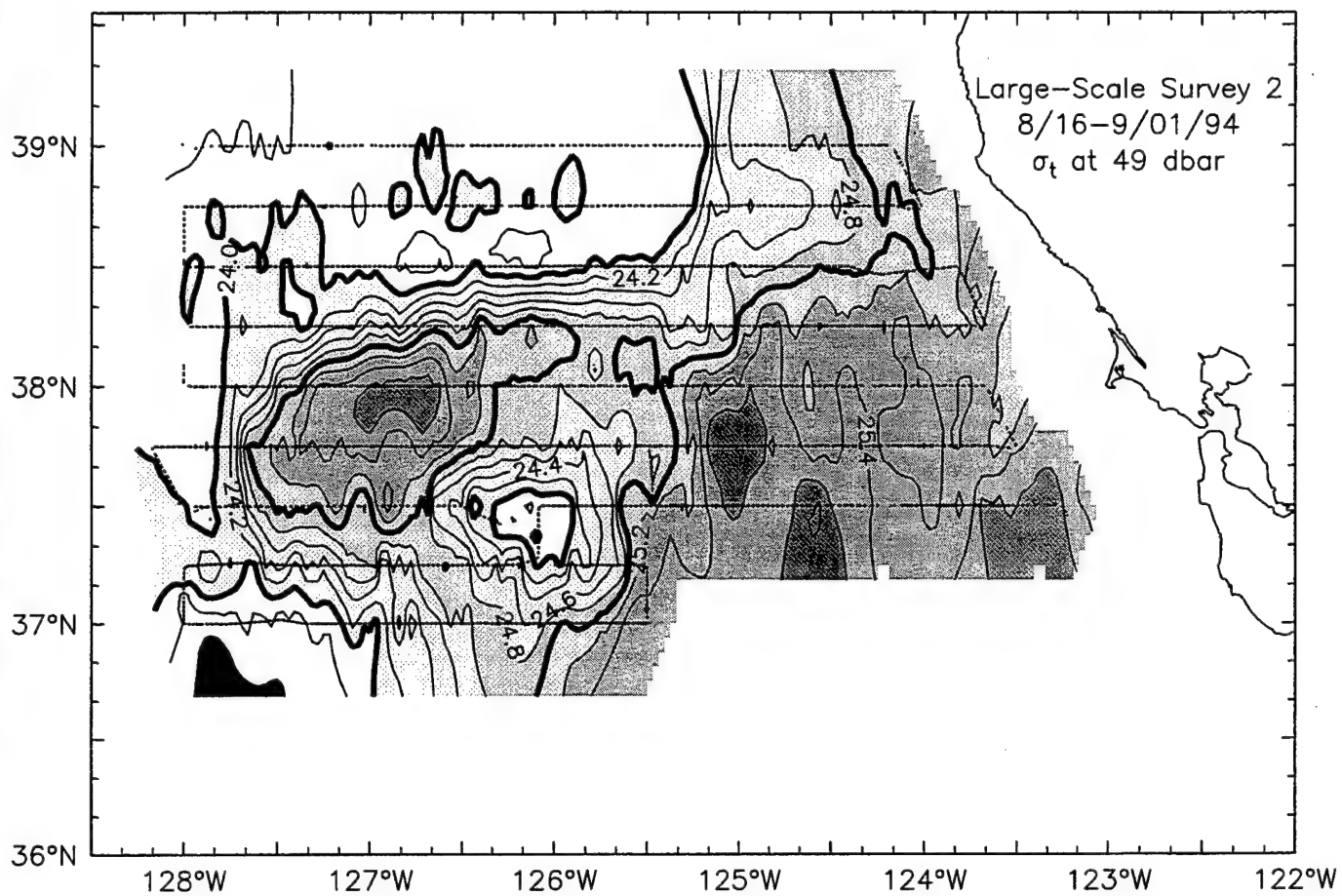


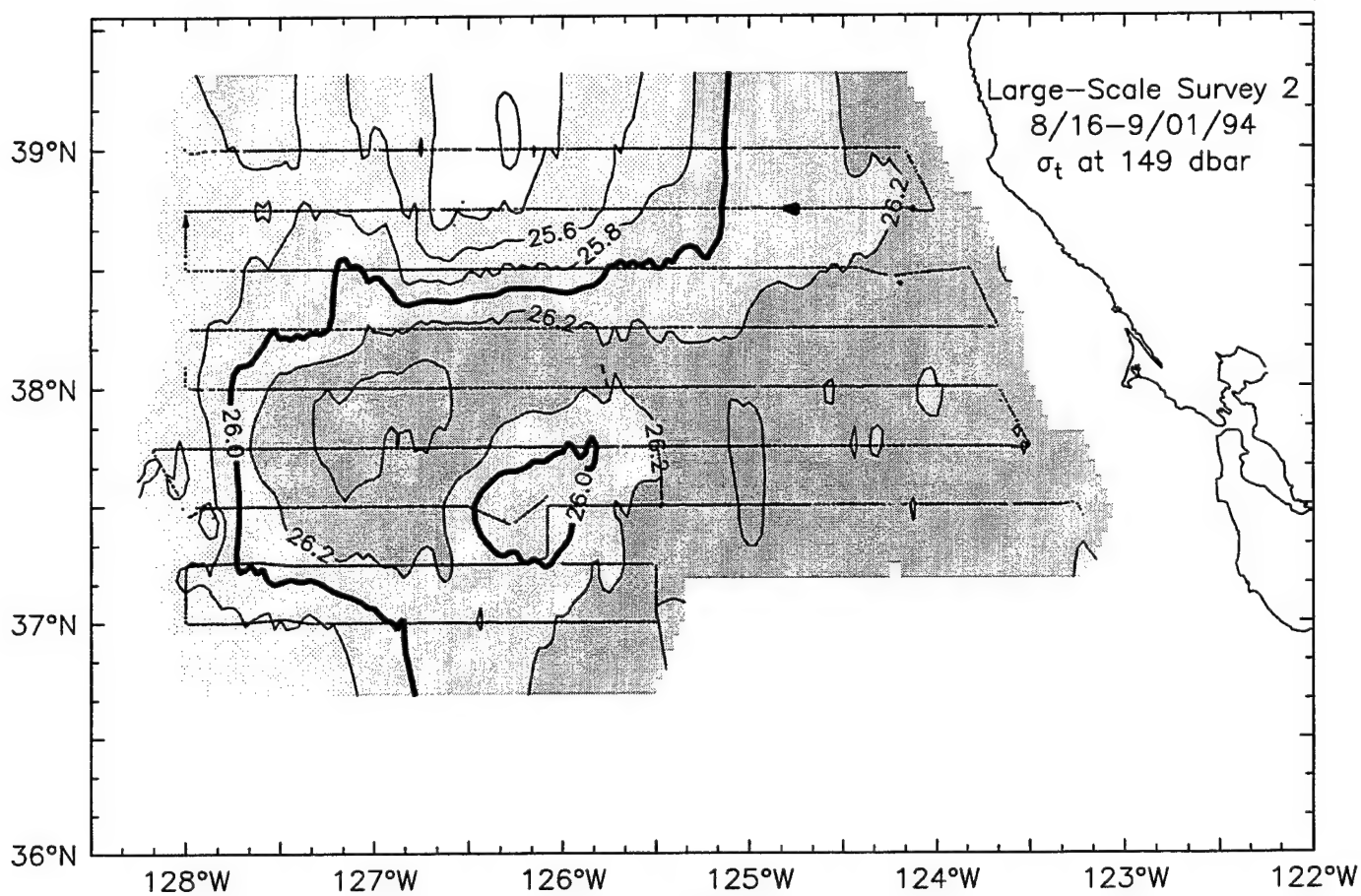
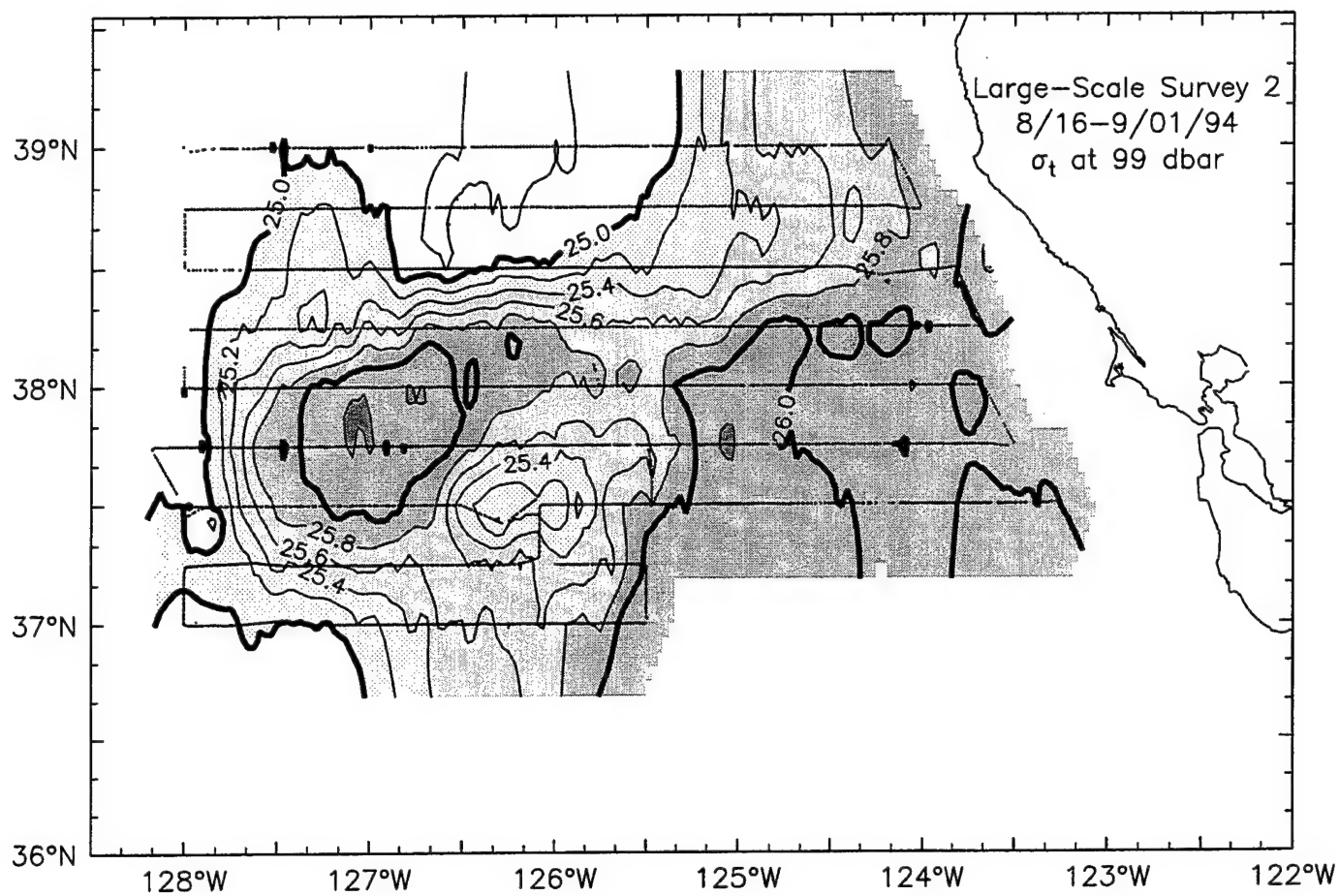


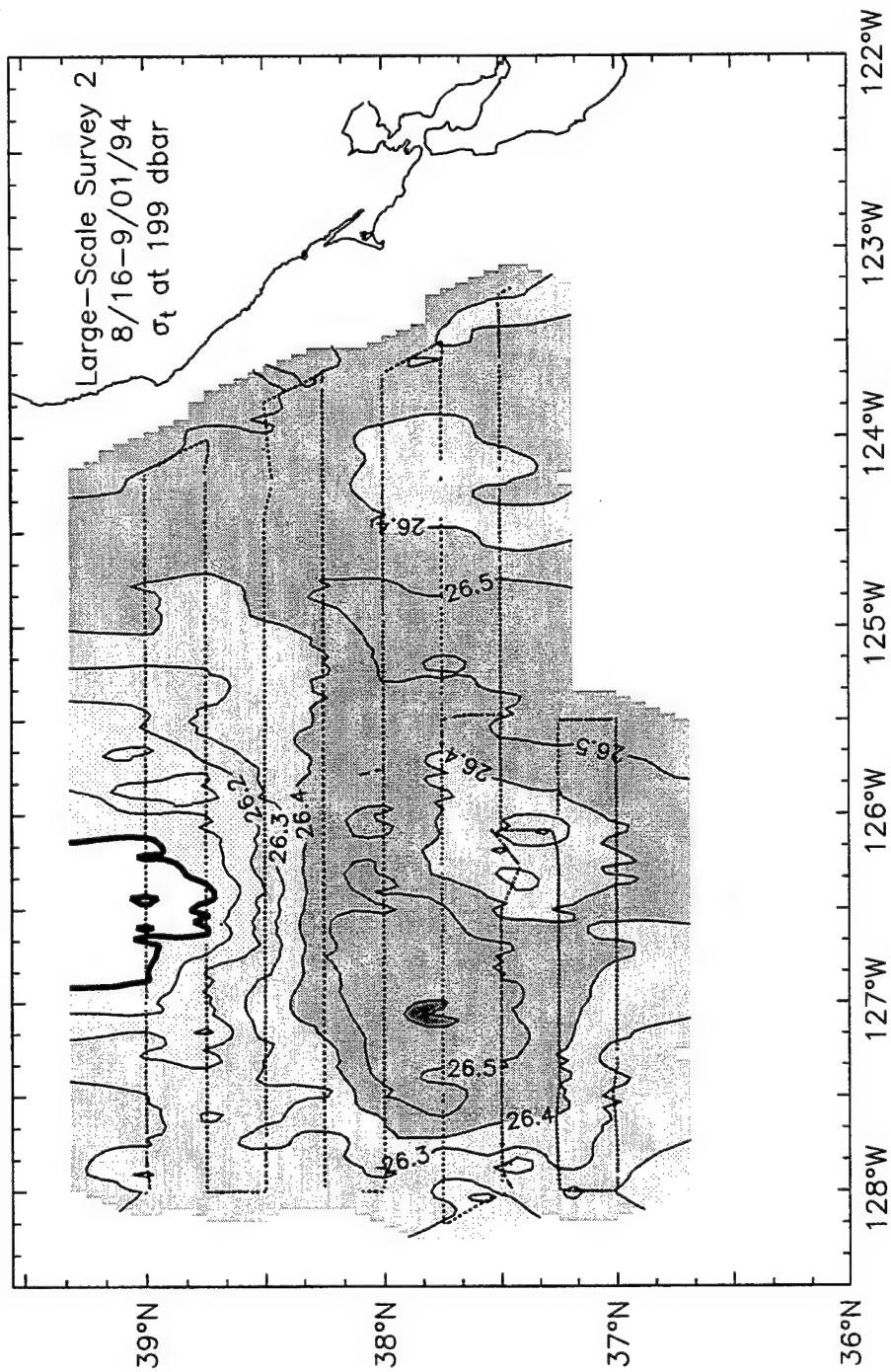


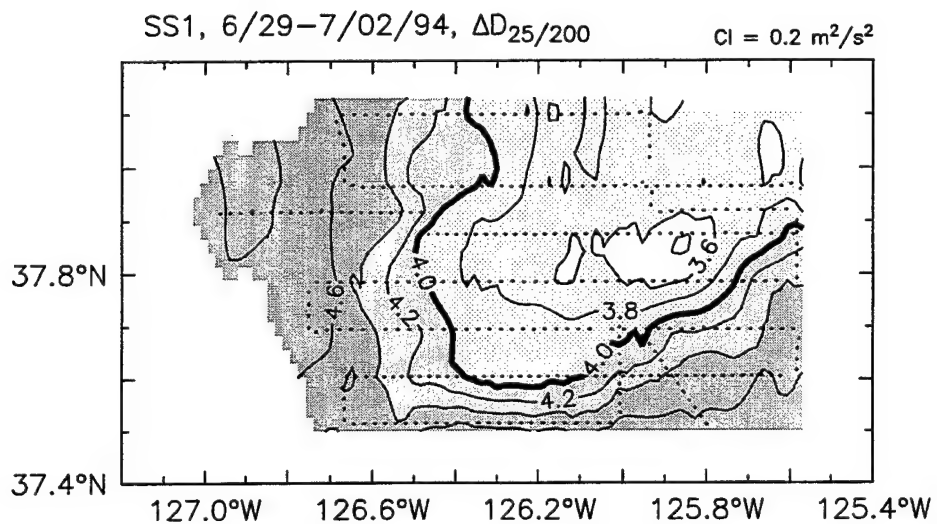
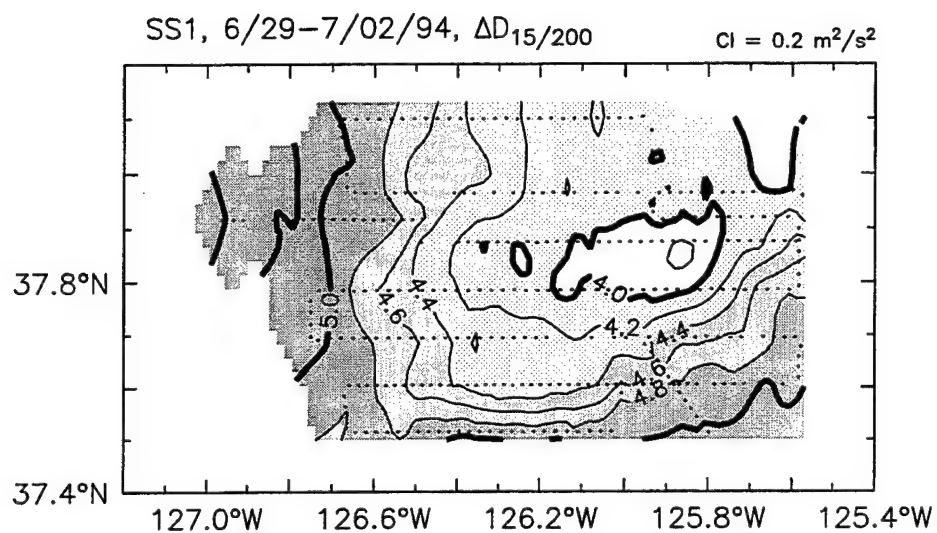


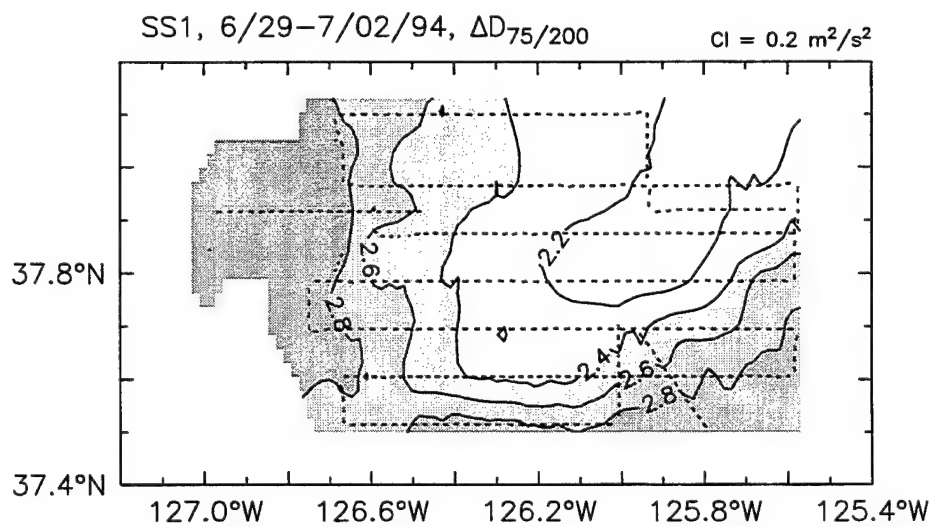
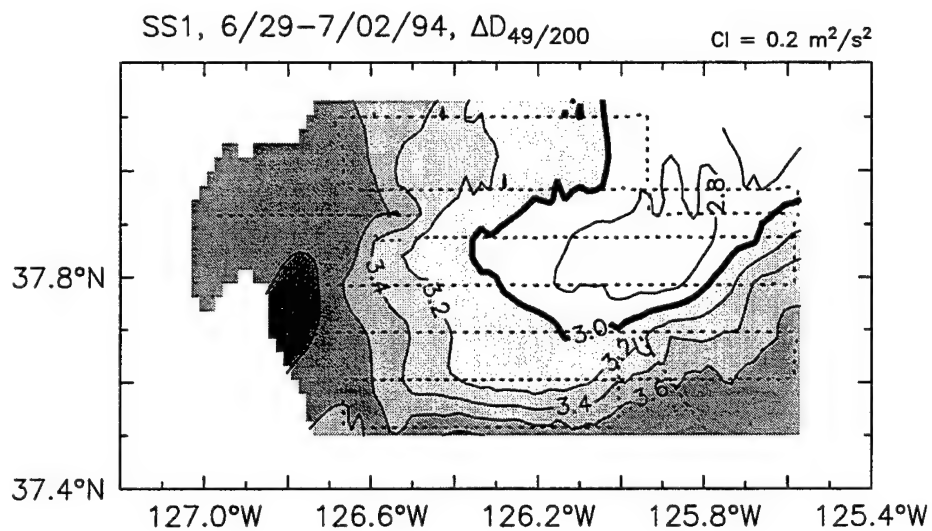


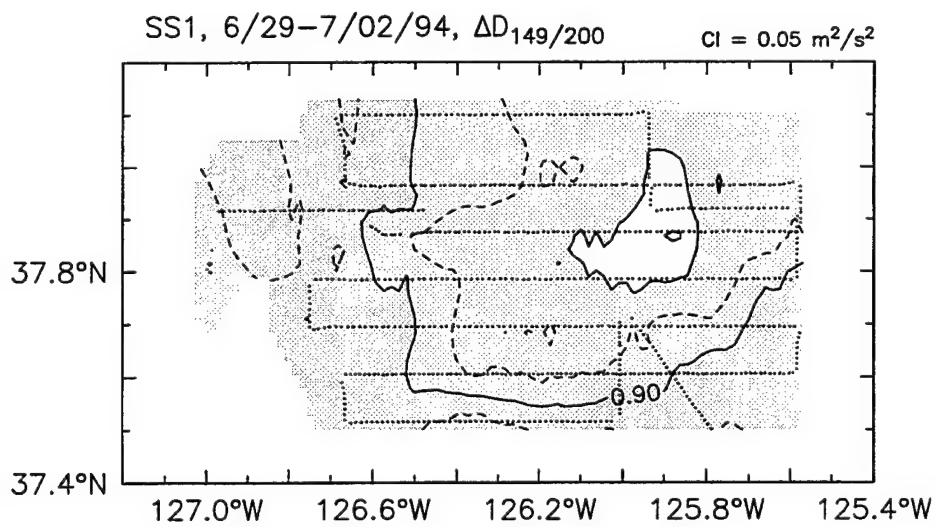
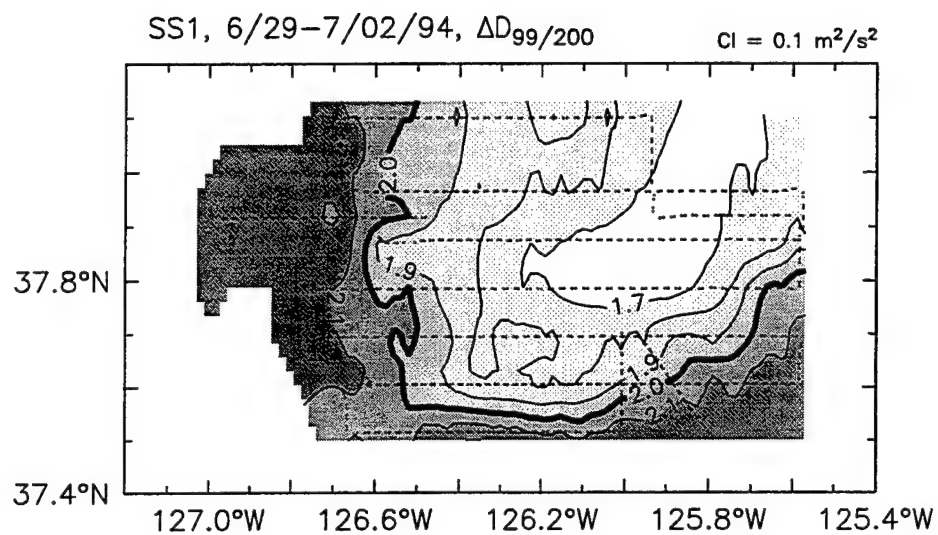


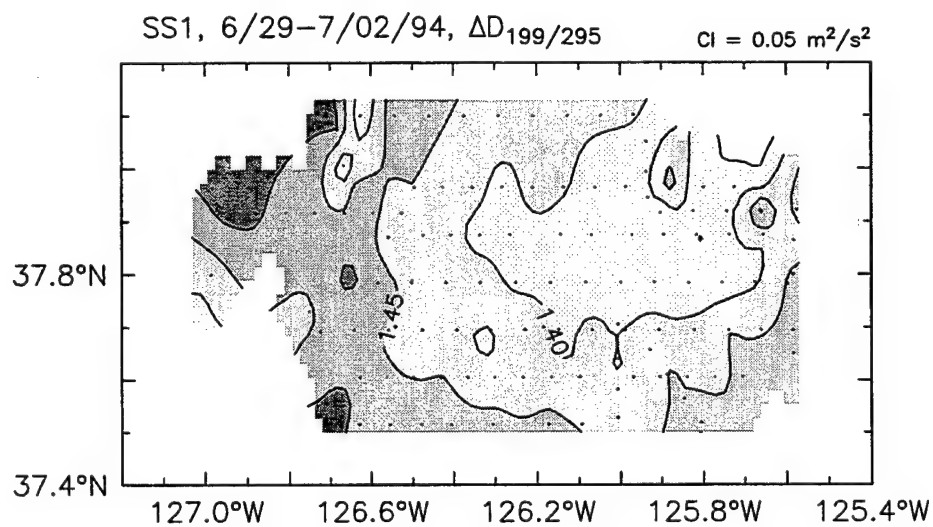
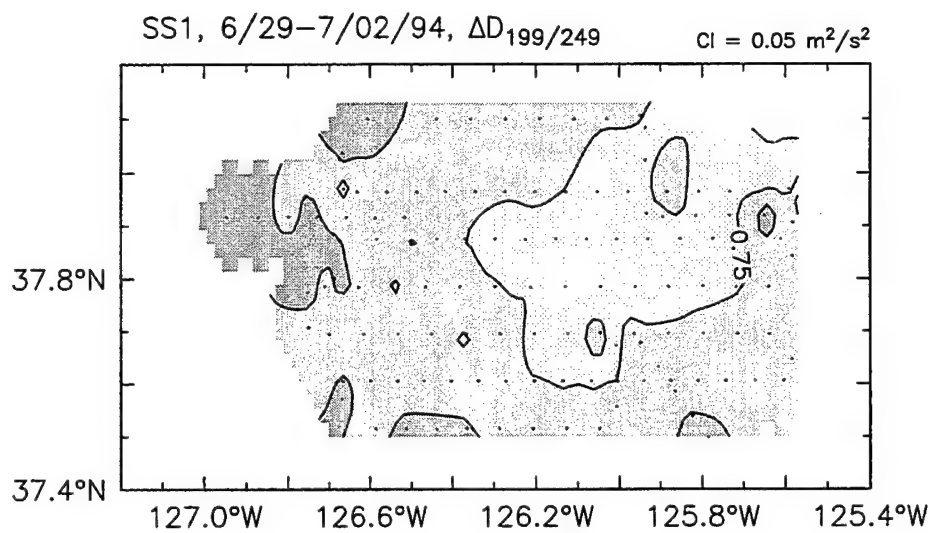


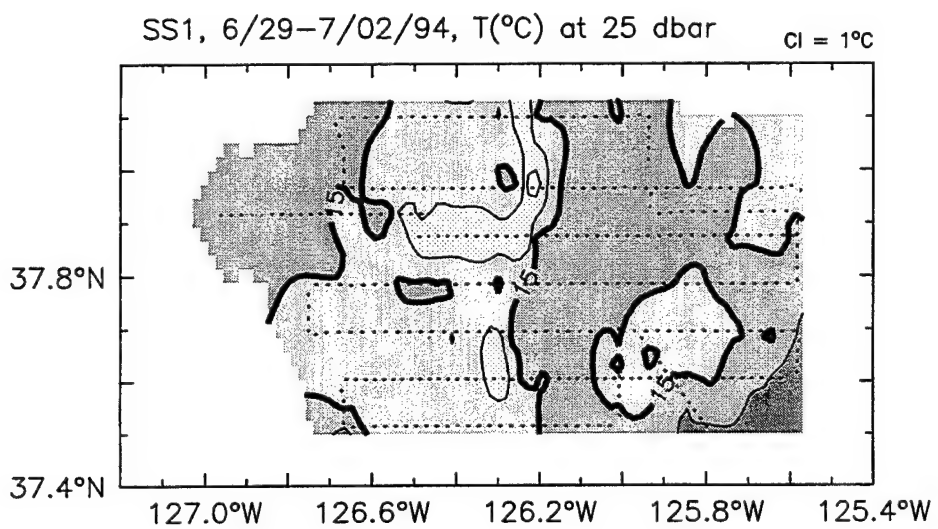
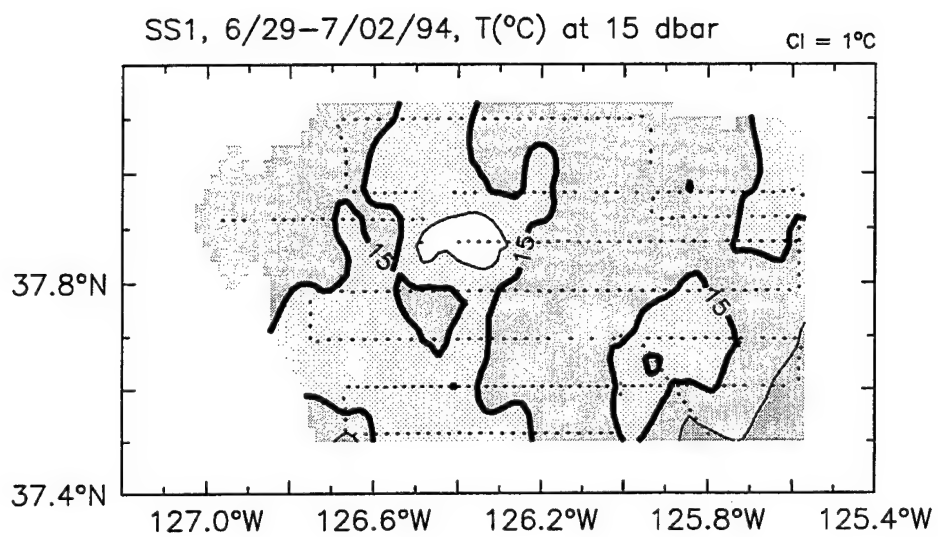






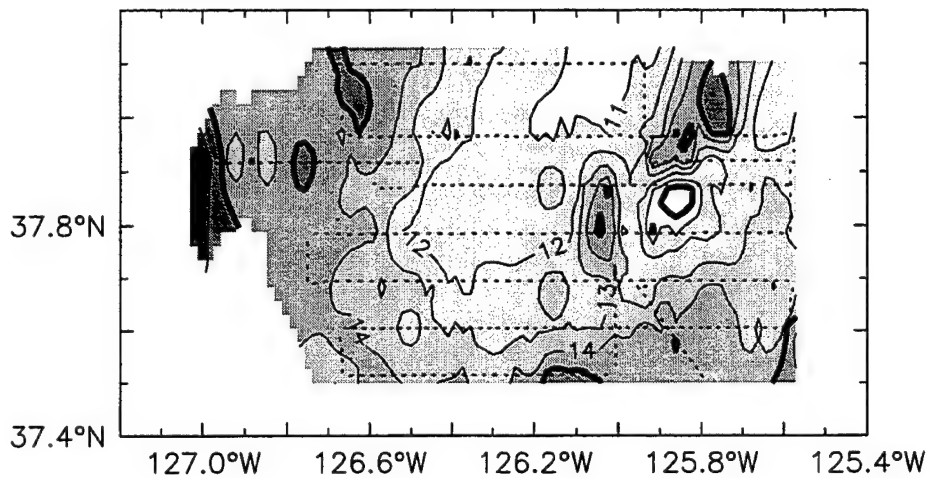






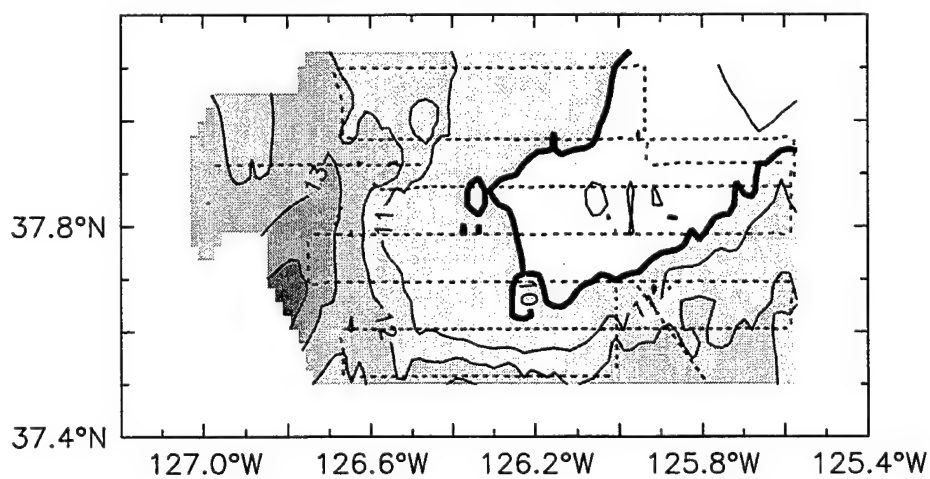
SS1, 6/29-7/02/94, T(°C) at 49 dbar

cl = 1°C

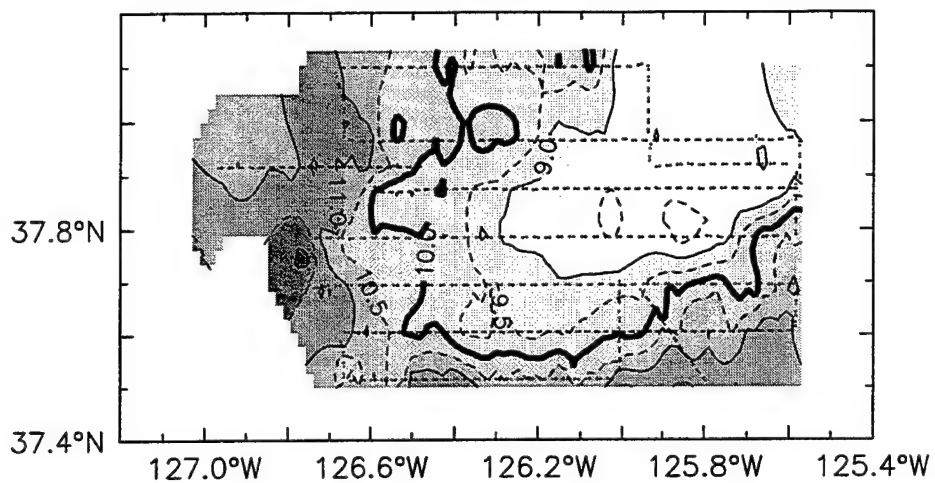


SS1, 6/29-7/02/94, T(°C) at 75 dbar

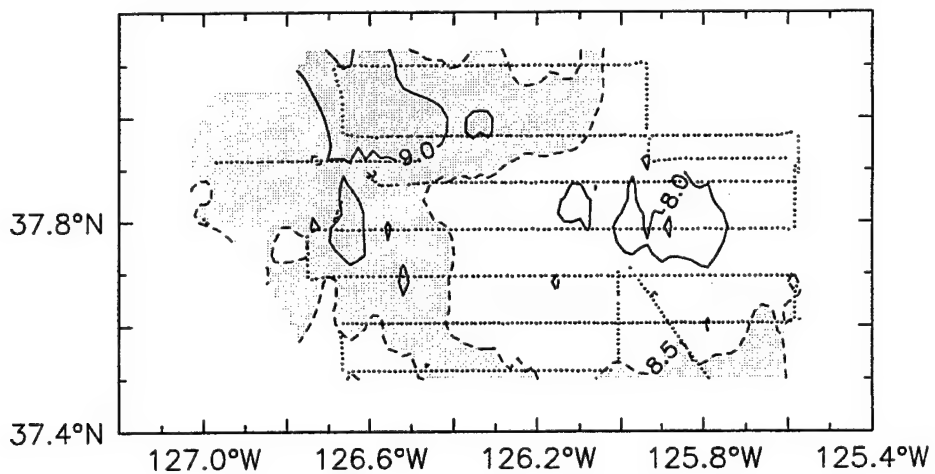
cl = 1°C



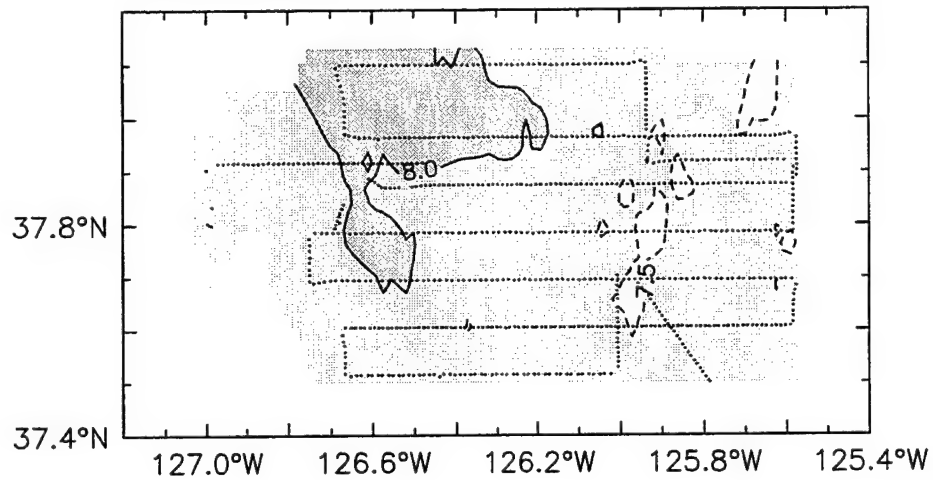
SS1, 6/29-7/02/94, T(°C) at 99 dbar CI = 0.5°C



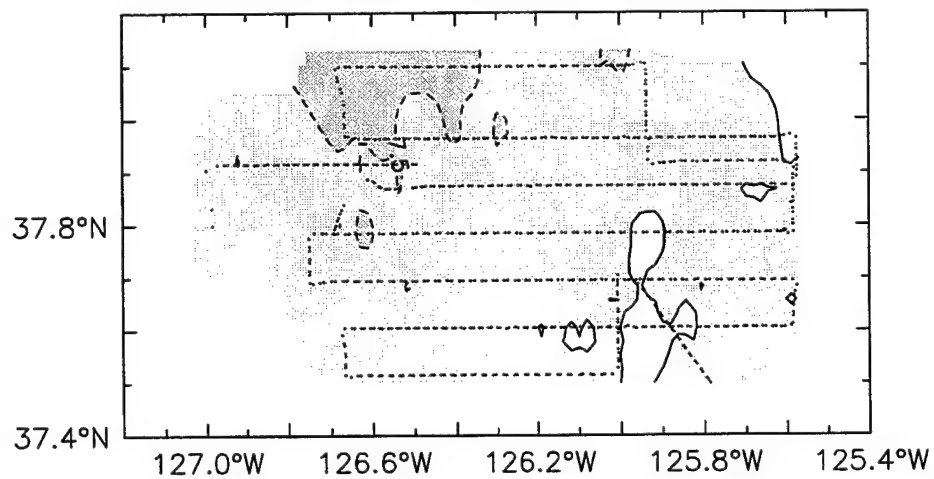
SS1, 6/29-7/02/94, T(°C) at 149 dbar CI = 0.5°C

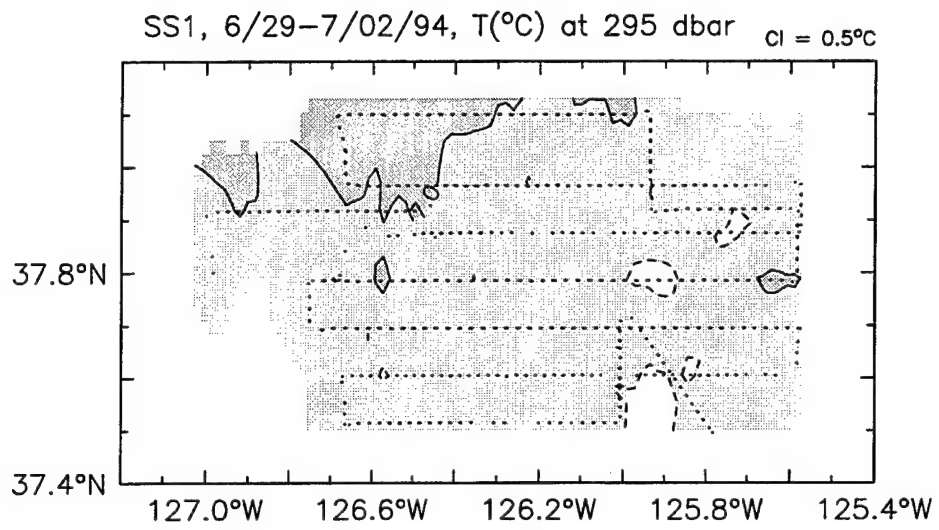


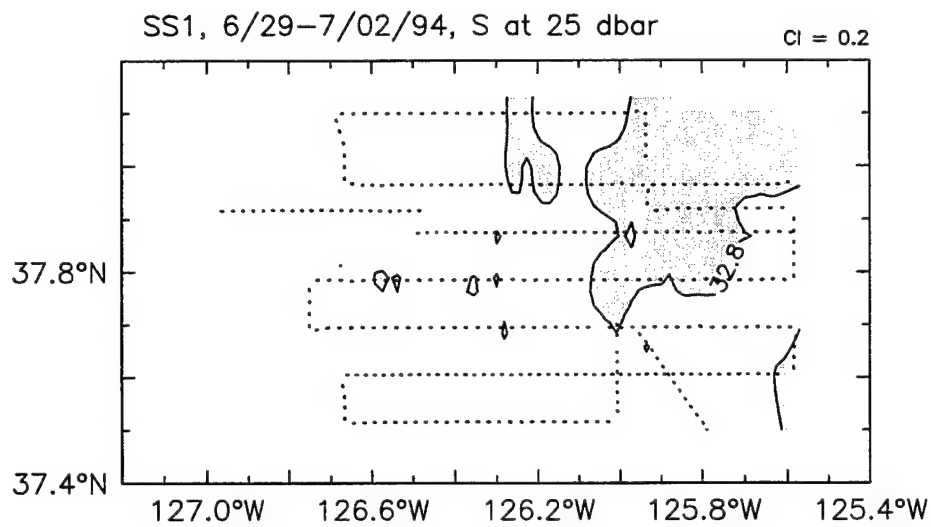
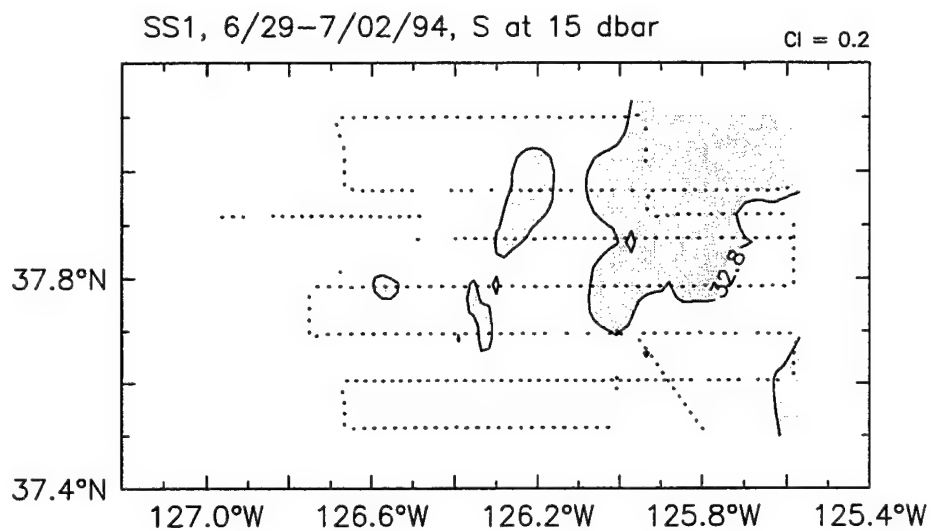
SS1, 6/29-7/02/94, T(°C) at 199 dbar CI = 0.5°C

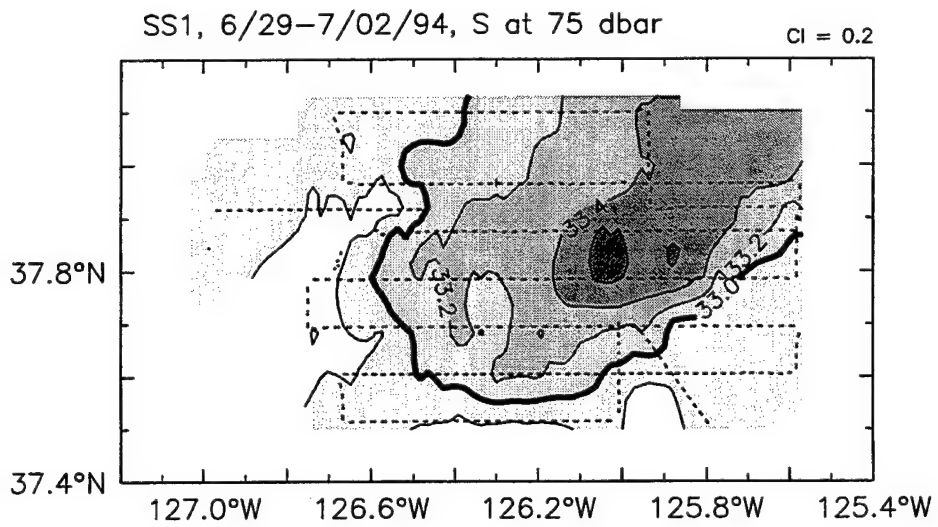
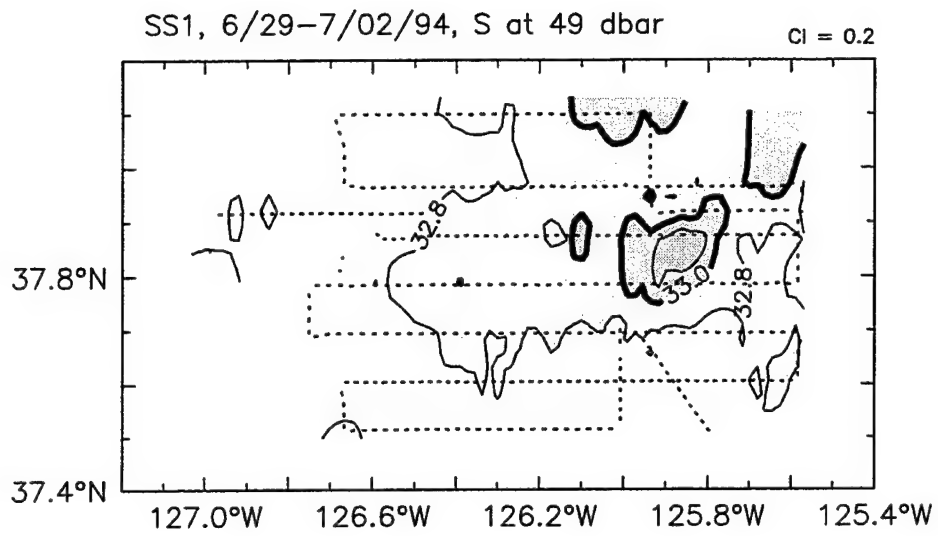


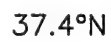
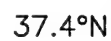
SS1, 6/29-7/02/94, T(°C) at 249 dbar CI = 0.5°C





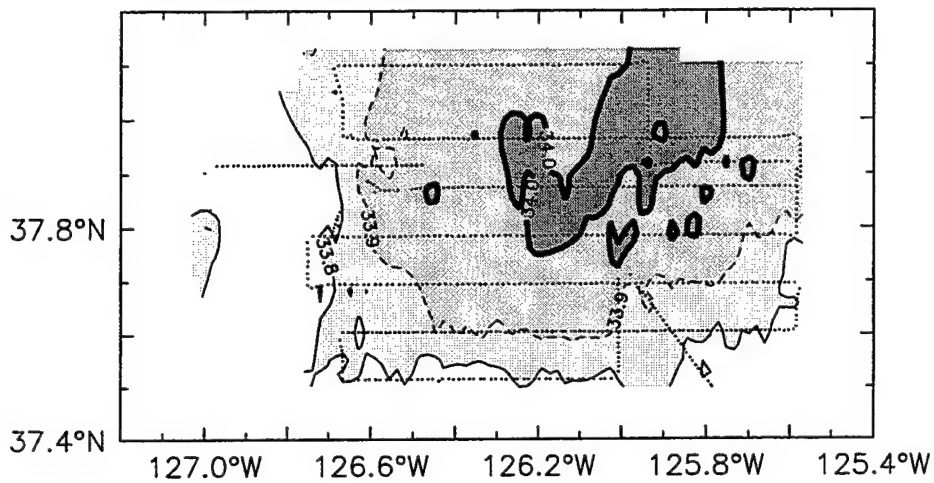




$$Cl = 0.1$$

$$Cl = 0.1$$


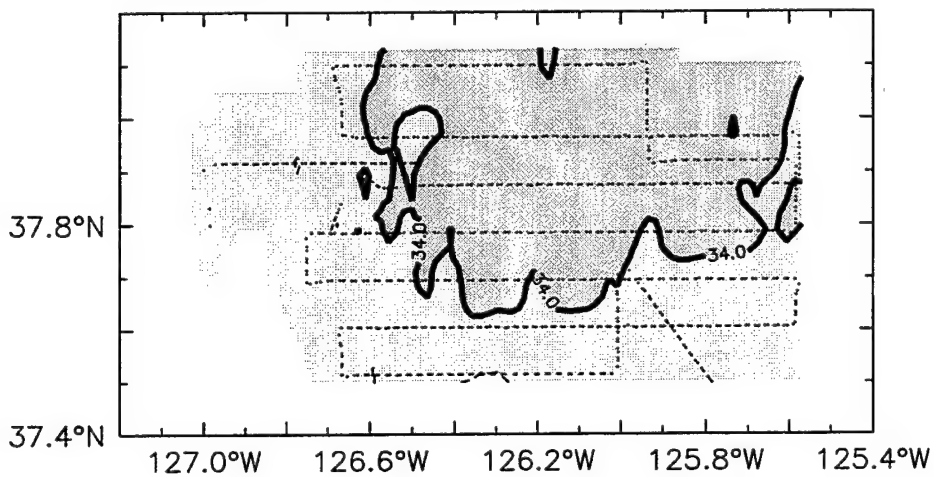
SS1, 6/29-7/02/94, S at 199 dbar

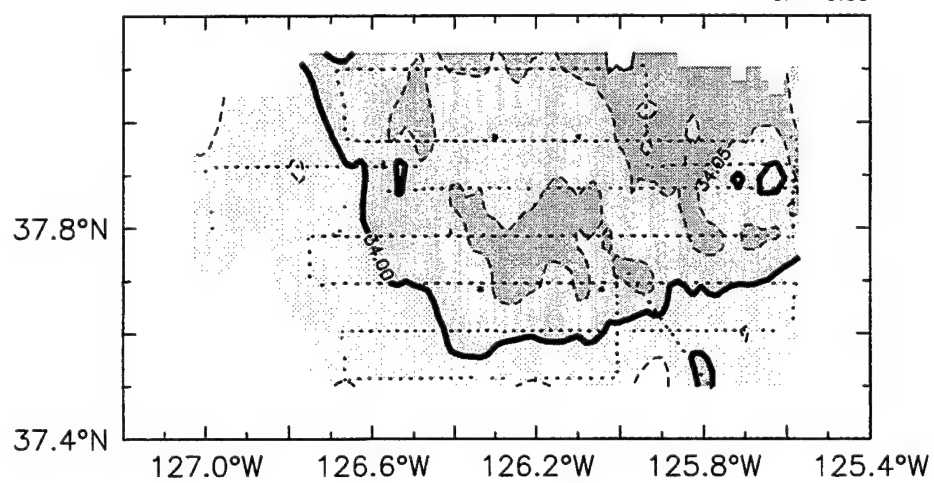
CI = 0.1



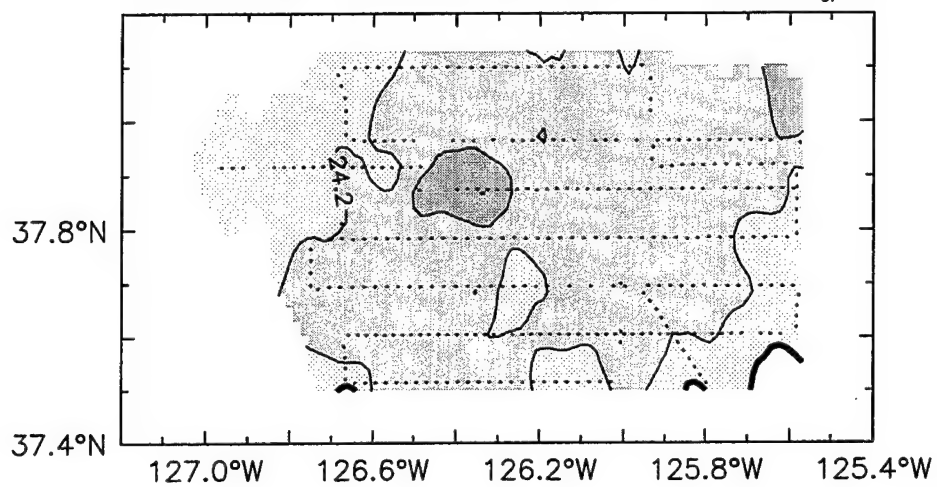
SS1, 6/29-7/02/94, S at 249 dbar

CI = 0.1

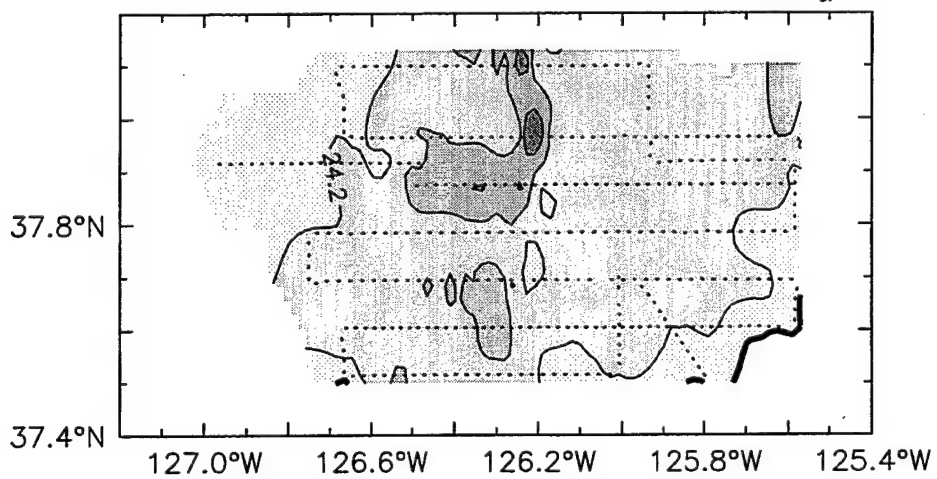


$$Cl = 0.05$$


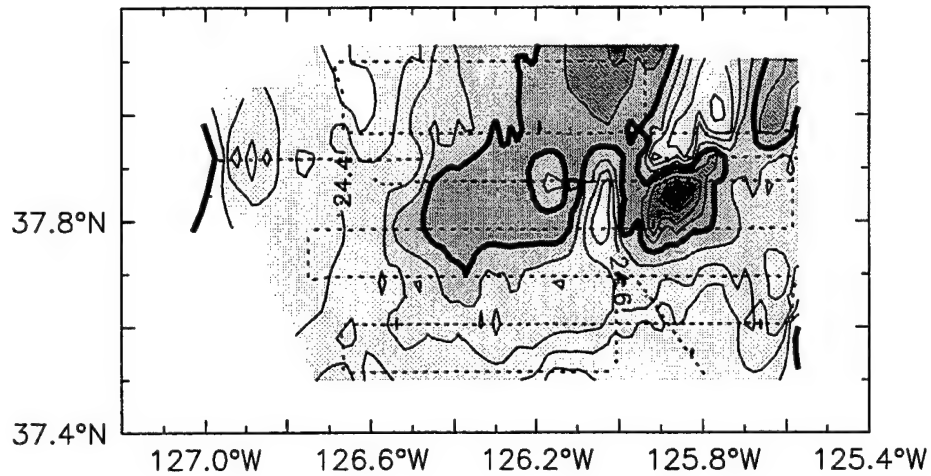
SS1, 6/29-7/02/94, σ_t at 15 dbar $cl = 0.2 \text{ kg/m}^3$



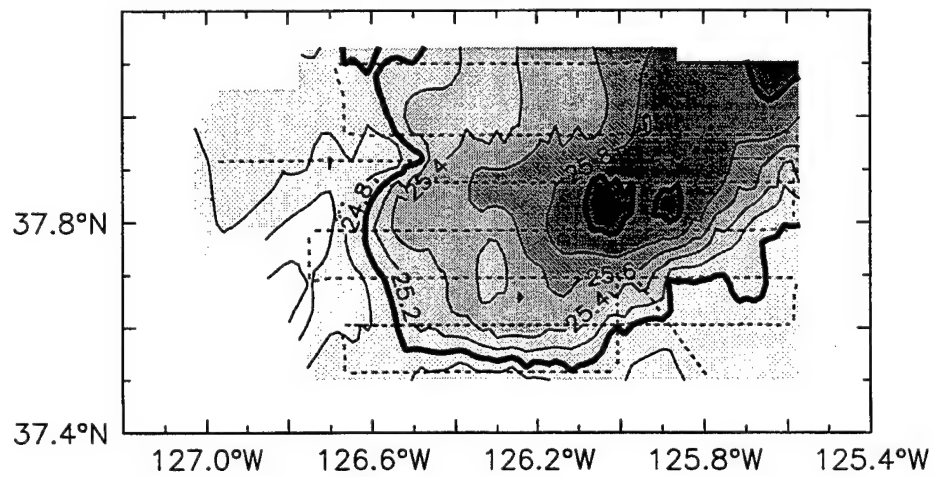
SS1, 6/29-7/02/94, σ_t at 25 dbar $cl = 0.2 \text{ kg/m}^3$



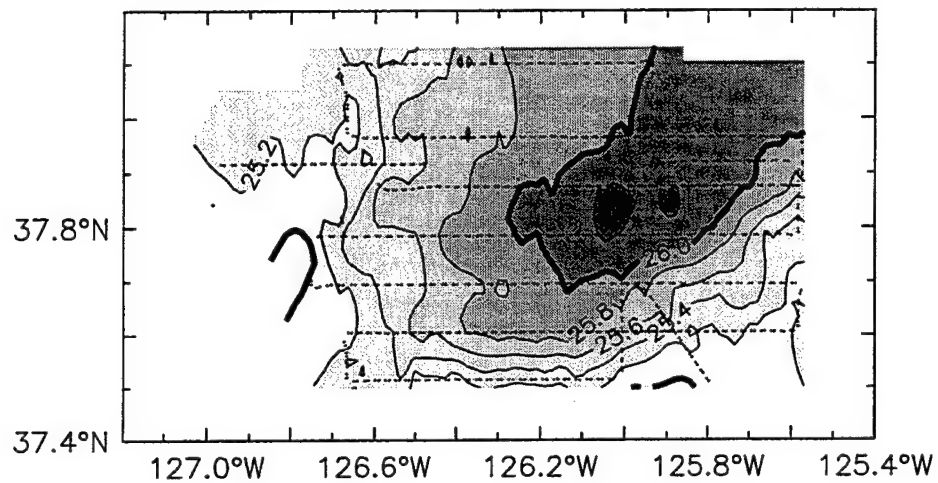
SS1, 6/29-7/02/94, σ_t at 49 dbar $cl = 0.2 \text{ kg/m}^3$



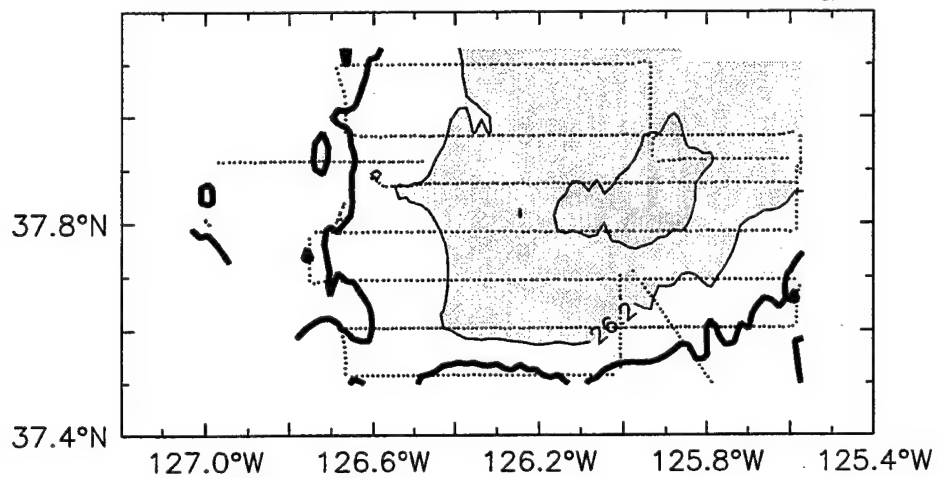
SS1, 6/29-7/02/94, σ_t at 75 dbar $cl = 0.2 \text{ kg/m}^3$



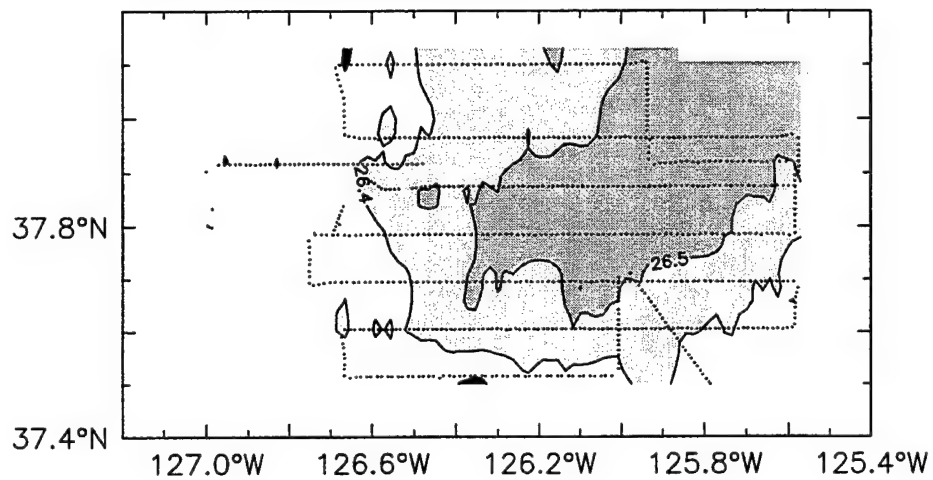
SS1, 6/29-7/02/94, σ_t at 99 dbar $cl = 0.2 \text{ kg/m}^3$



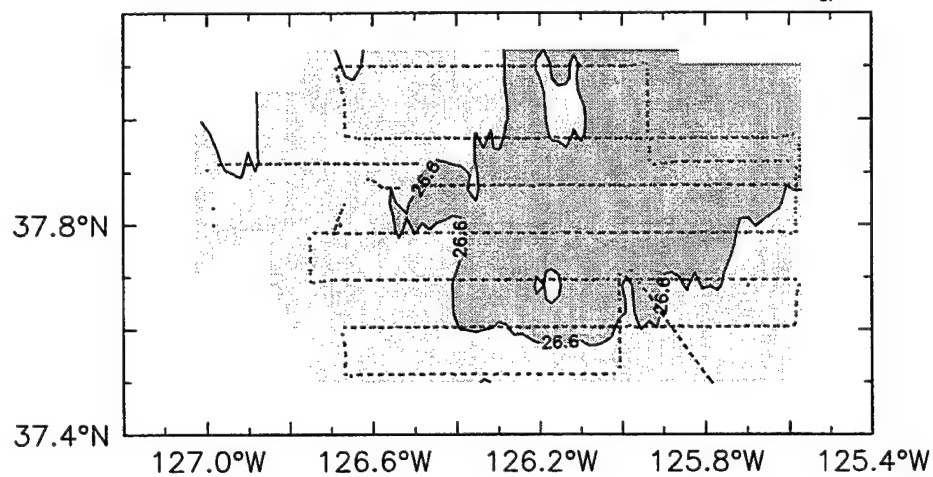
SS1, 6/29-7/02/94, σ_t at 149 dbar $cl = 0.2 \text{ kg/m}^3$



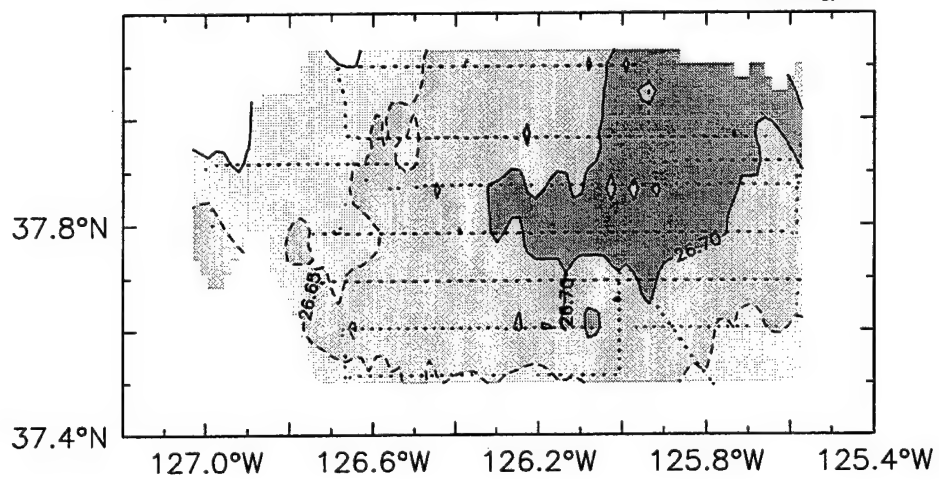
SS1, 6/29-7/02/94, σ_t at 199 dbar $cl = 0.1 \text{ kg/m}^3$

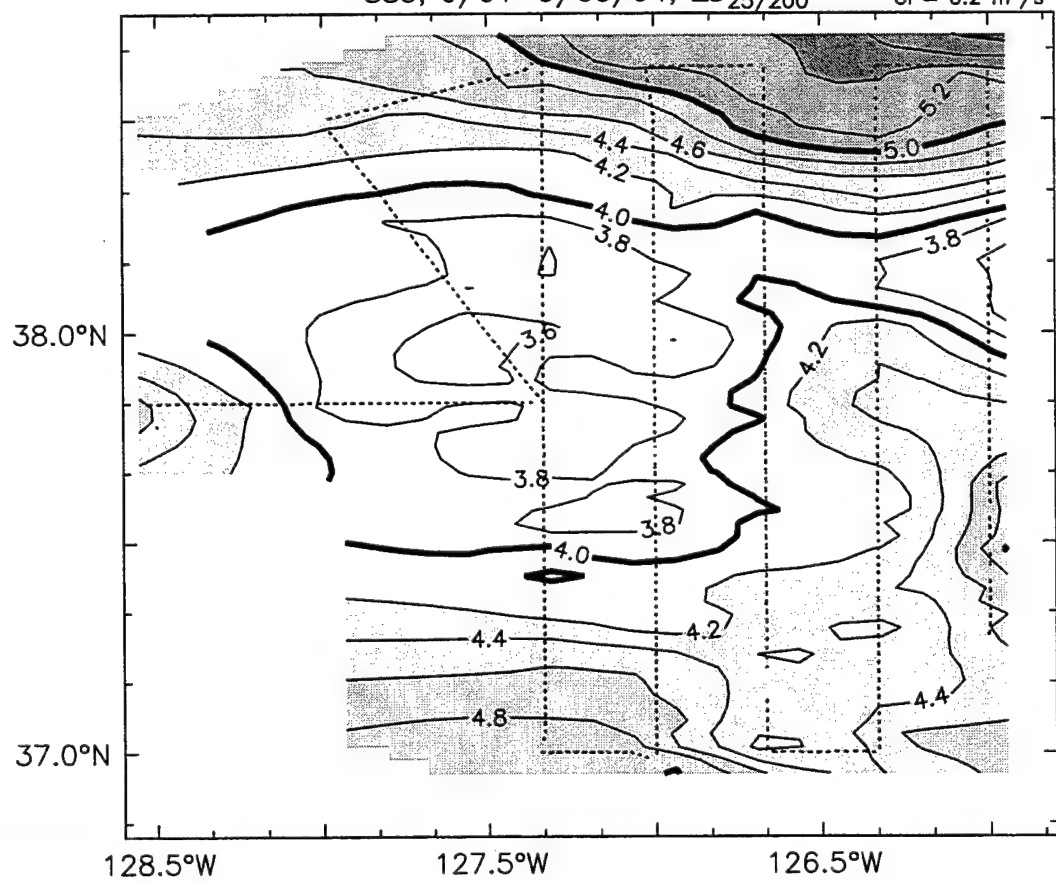
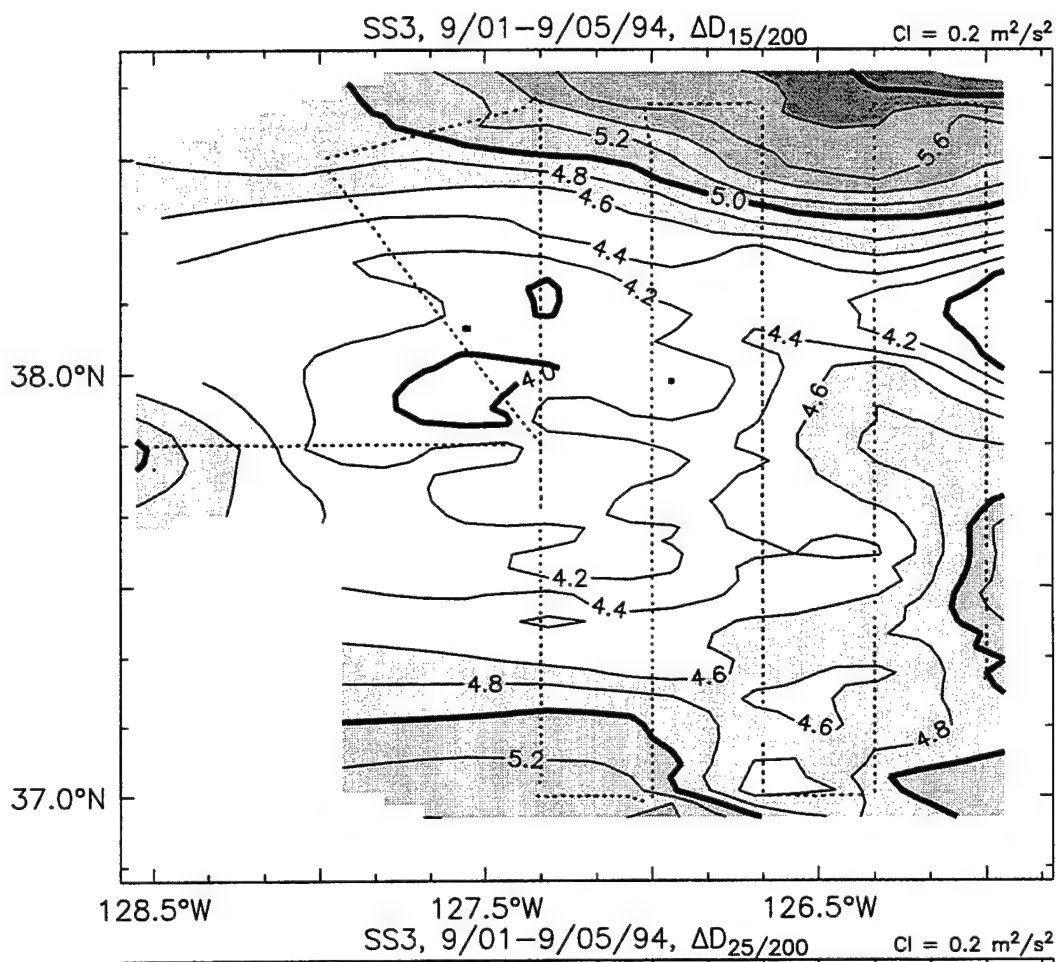


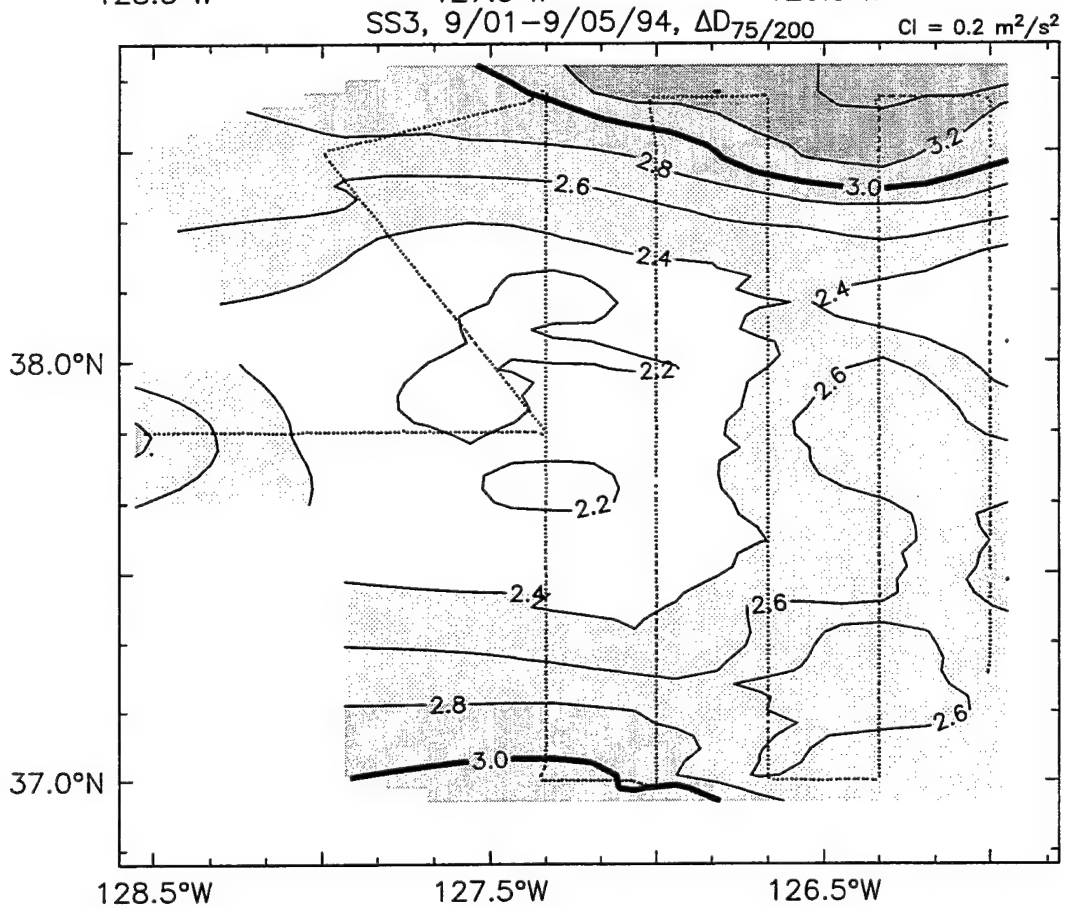
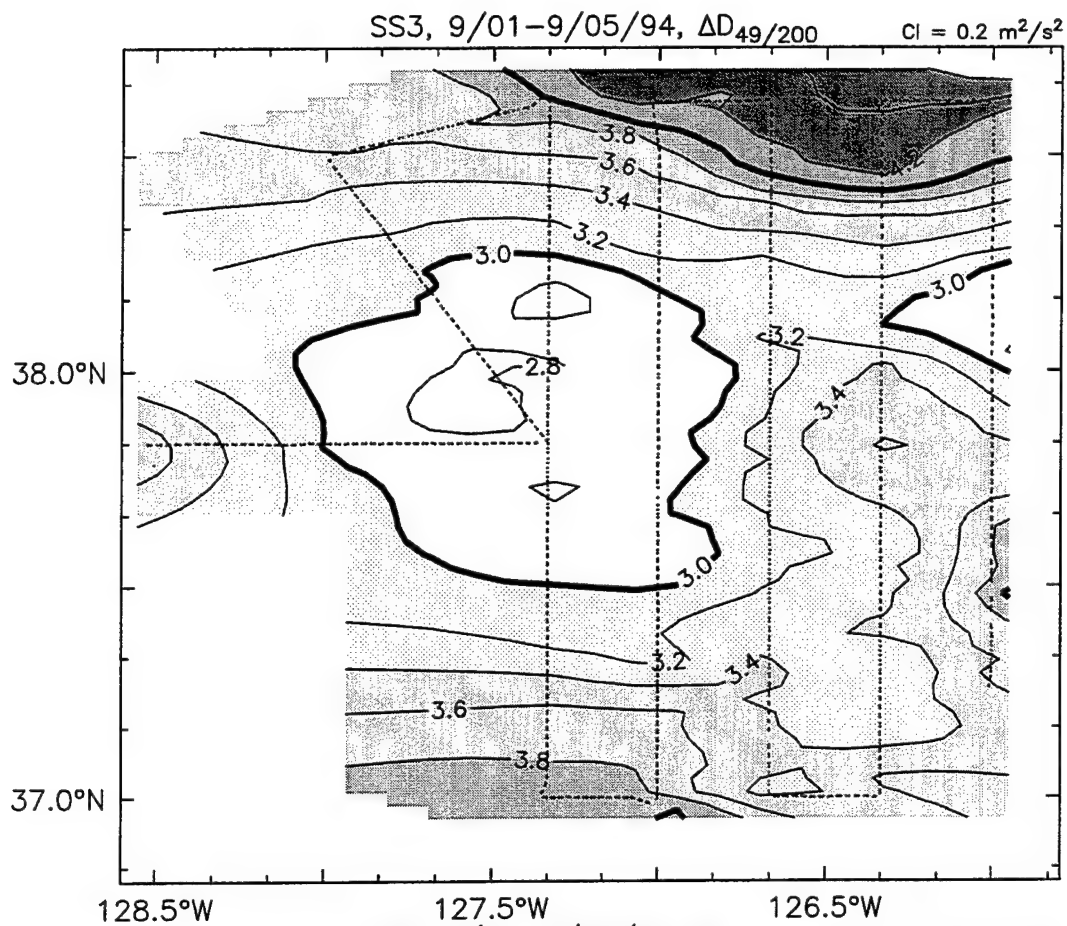
SS1, 6/29-7/02/94, σ_t at 249 dbar $cl = 0.1 \text{ kg/m}^3$

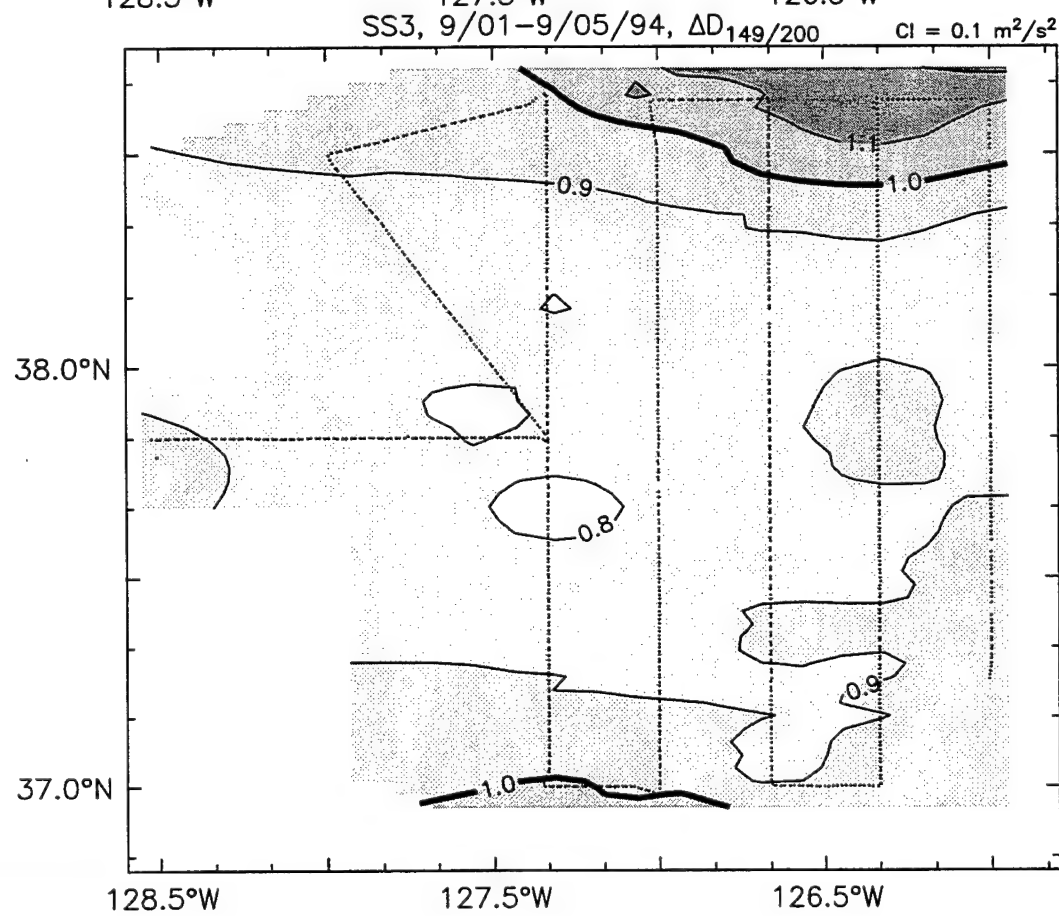
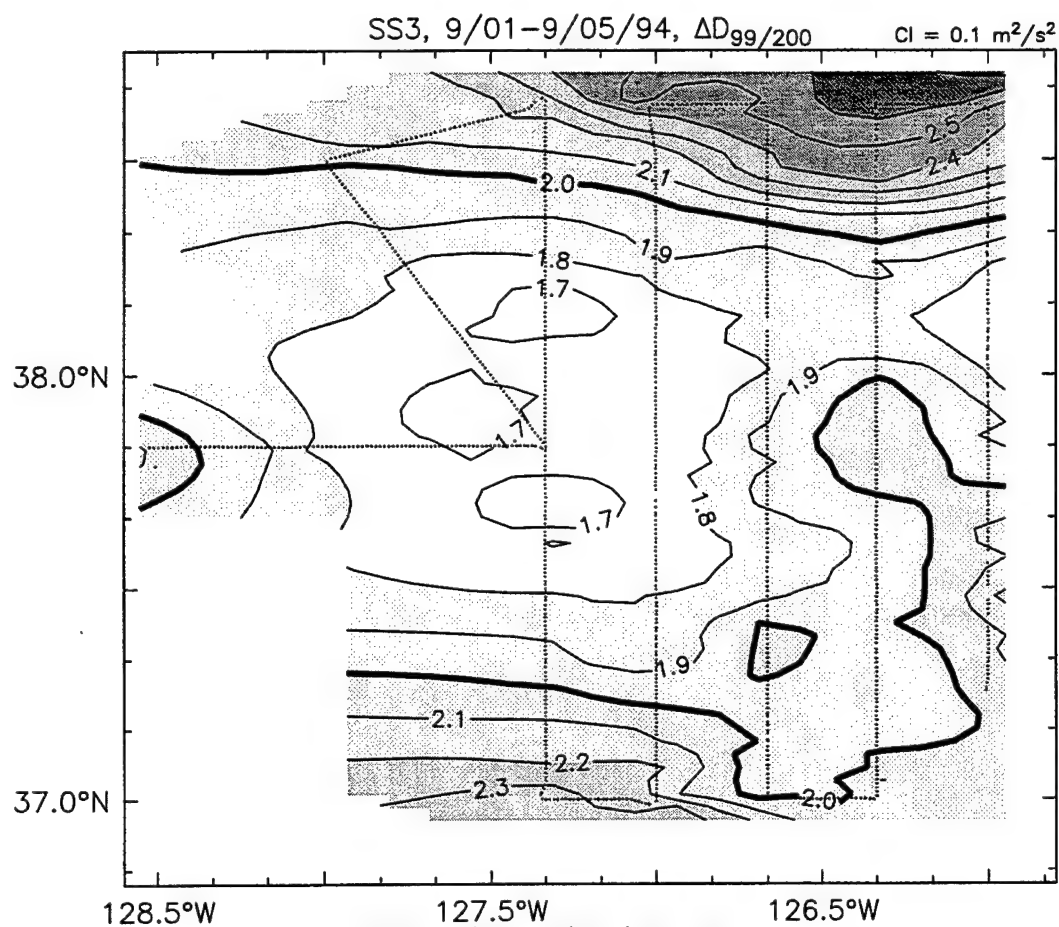


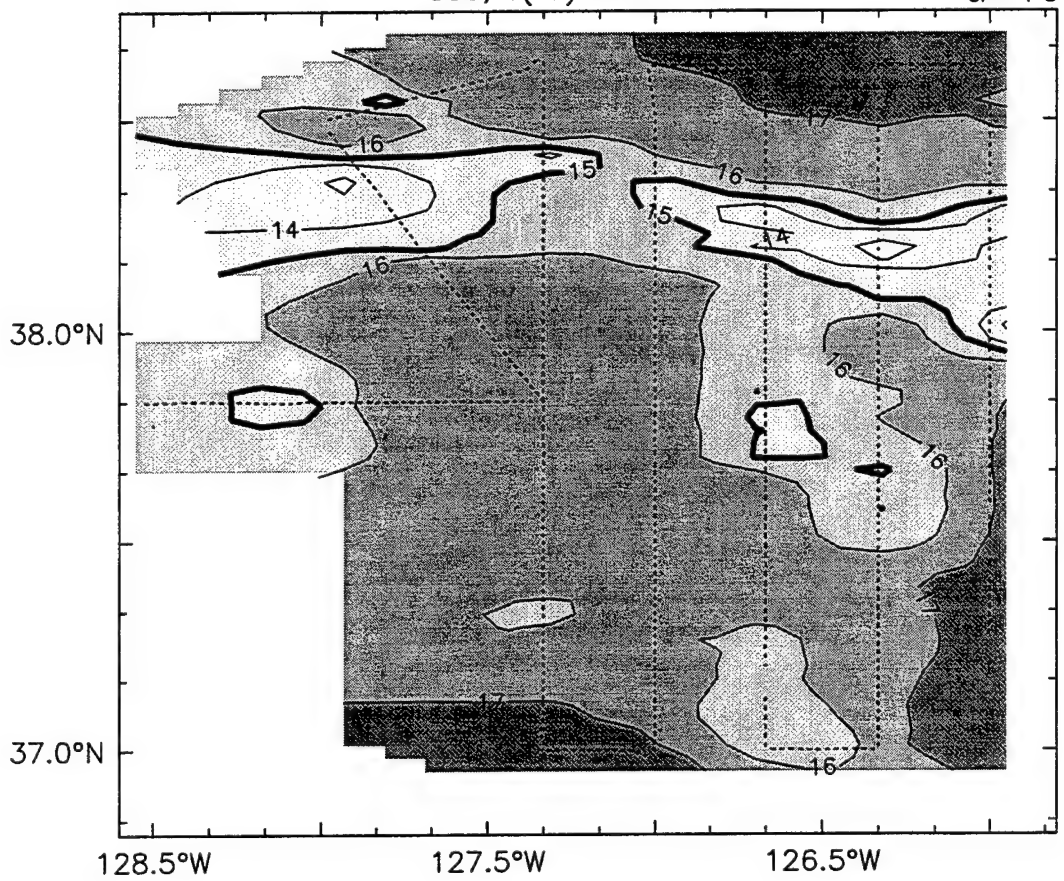
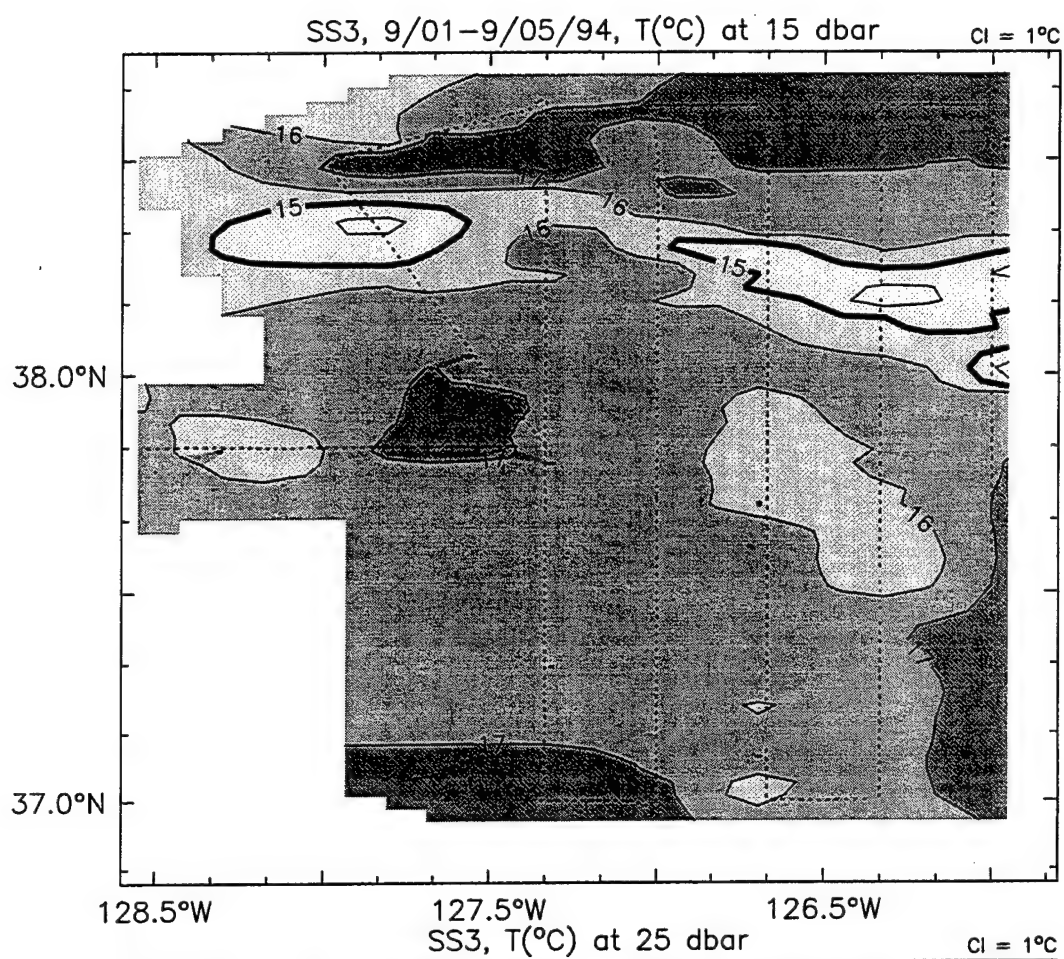
SS1, 6/29-7/02/94, σ_t at 295 dbar $\rho_{cl} = 0.05 \text{ kg/m}^3$

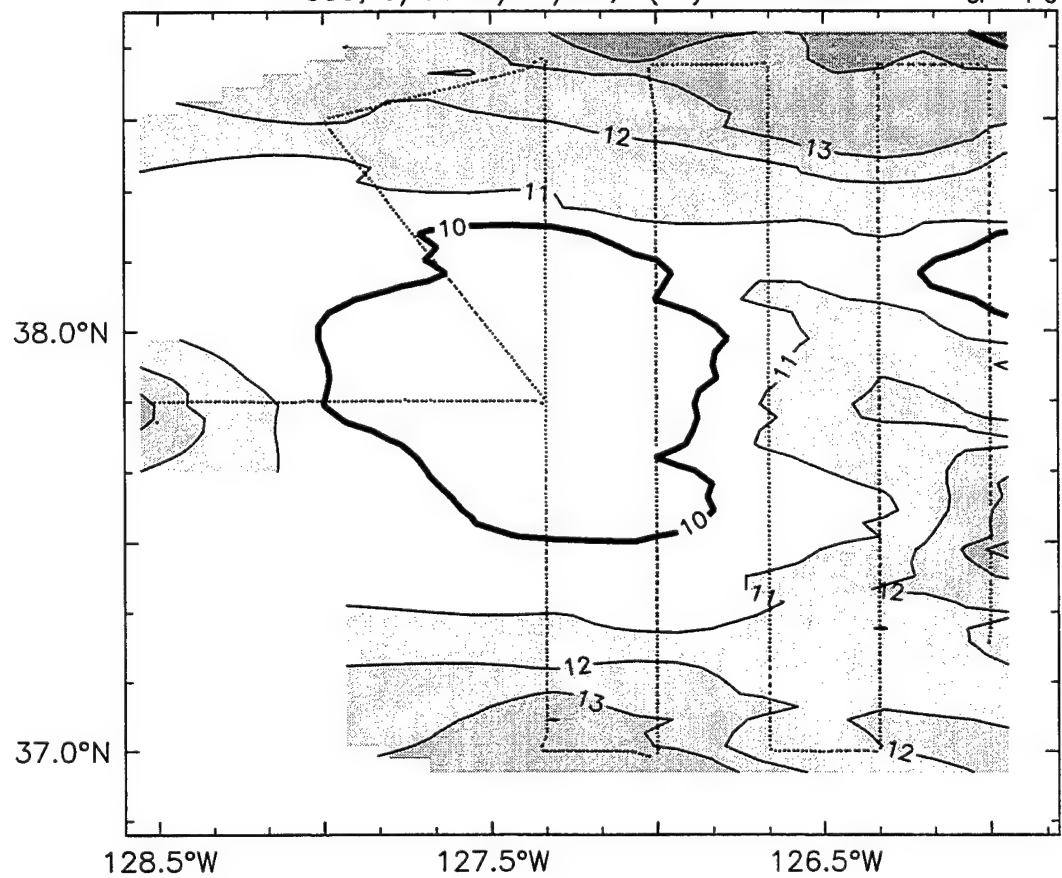
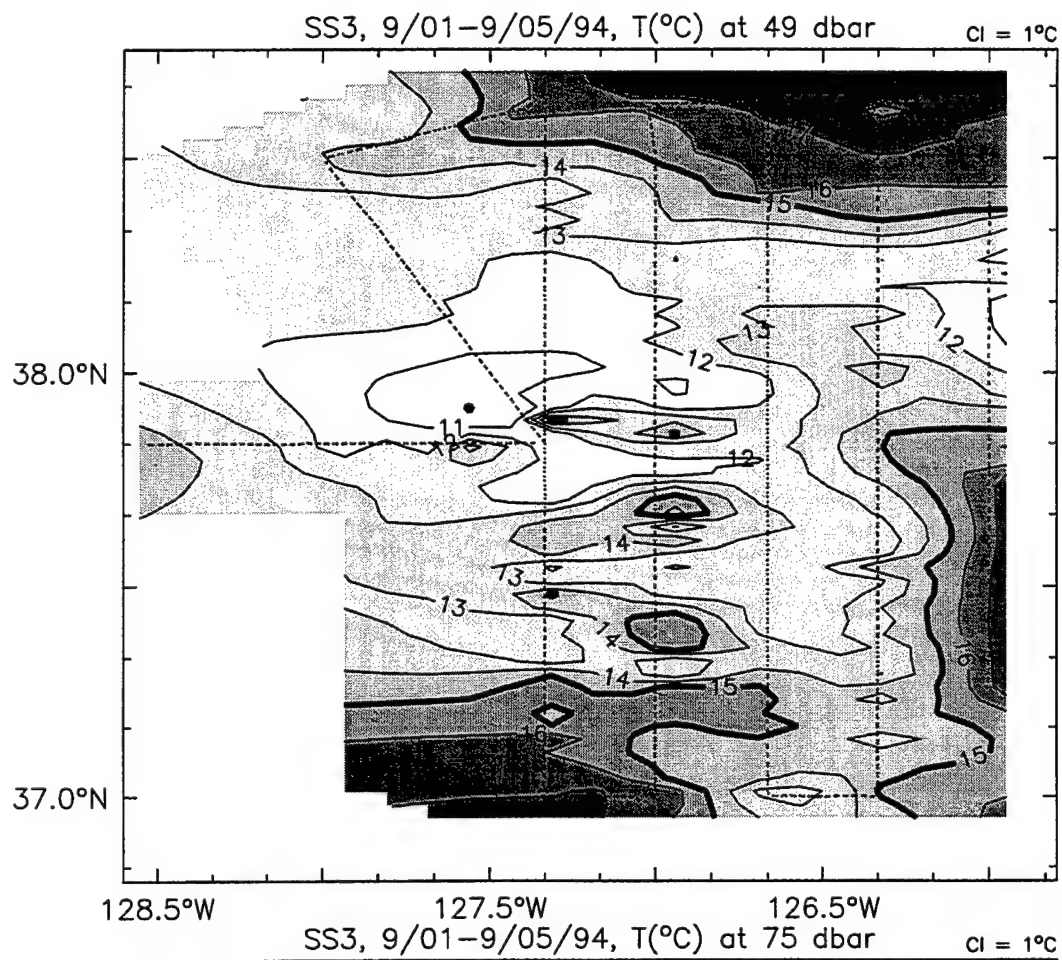


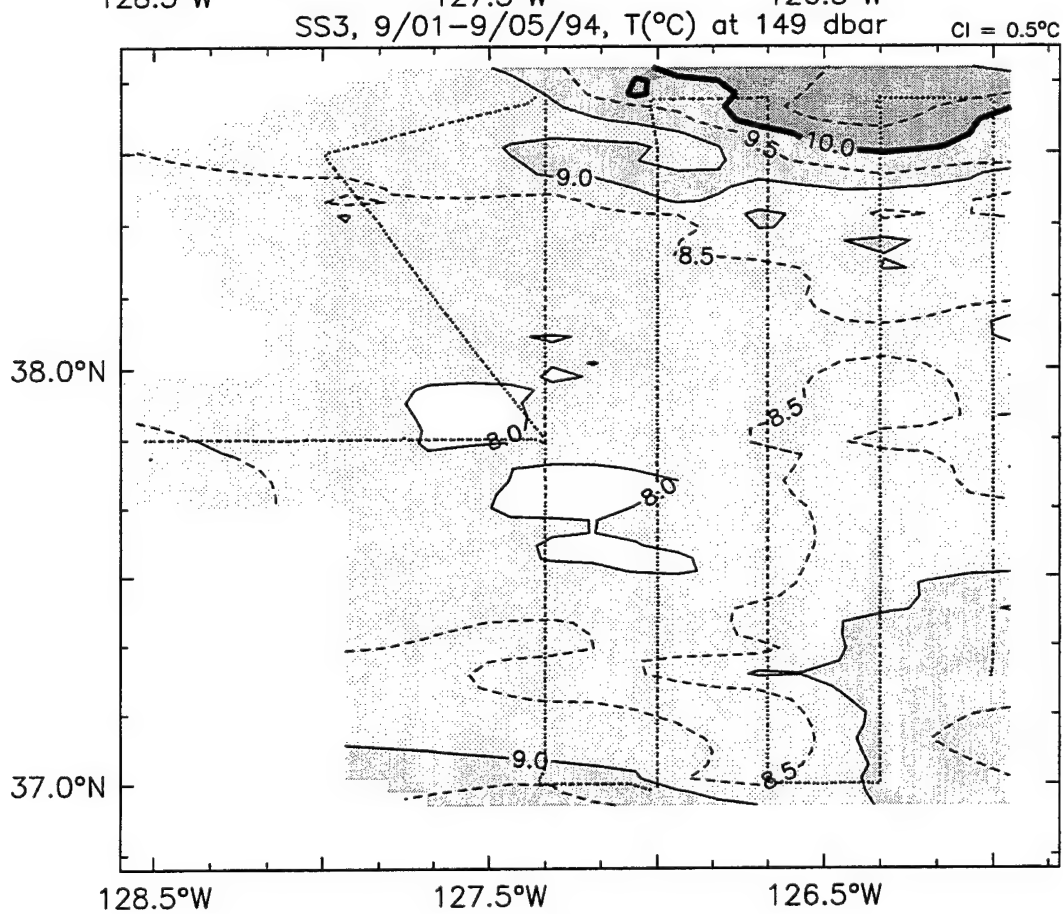
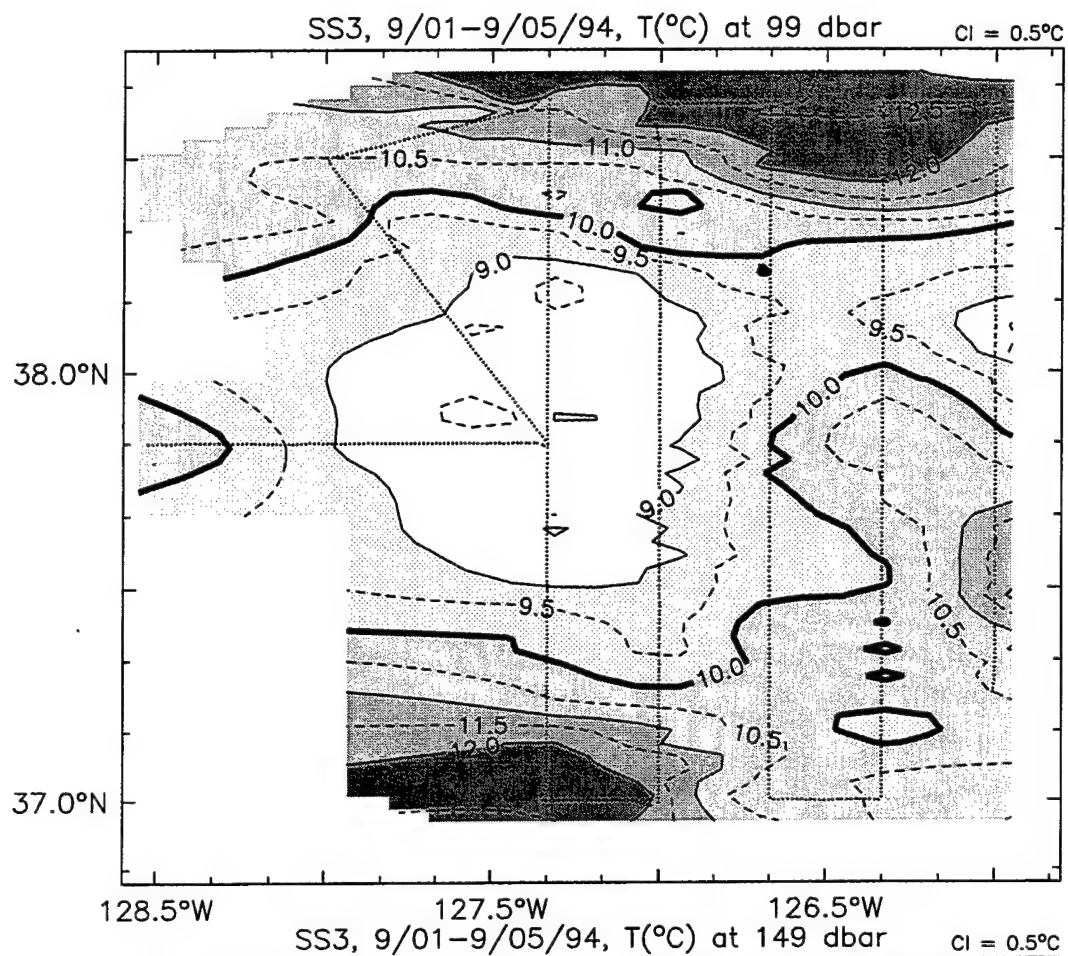


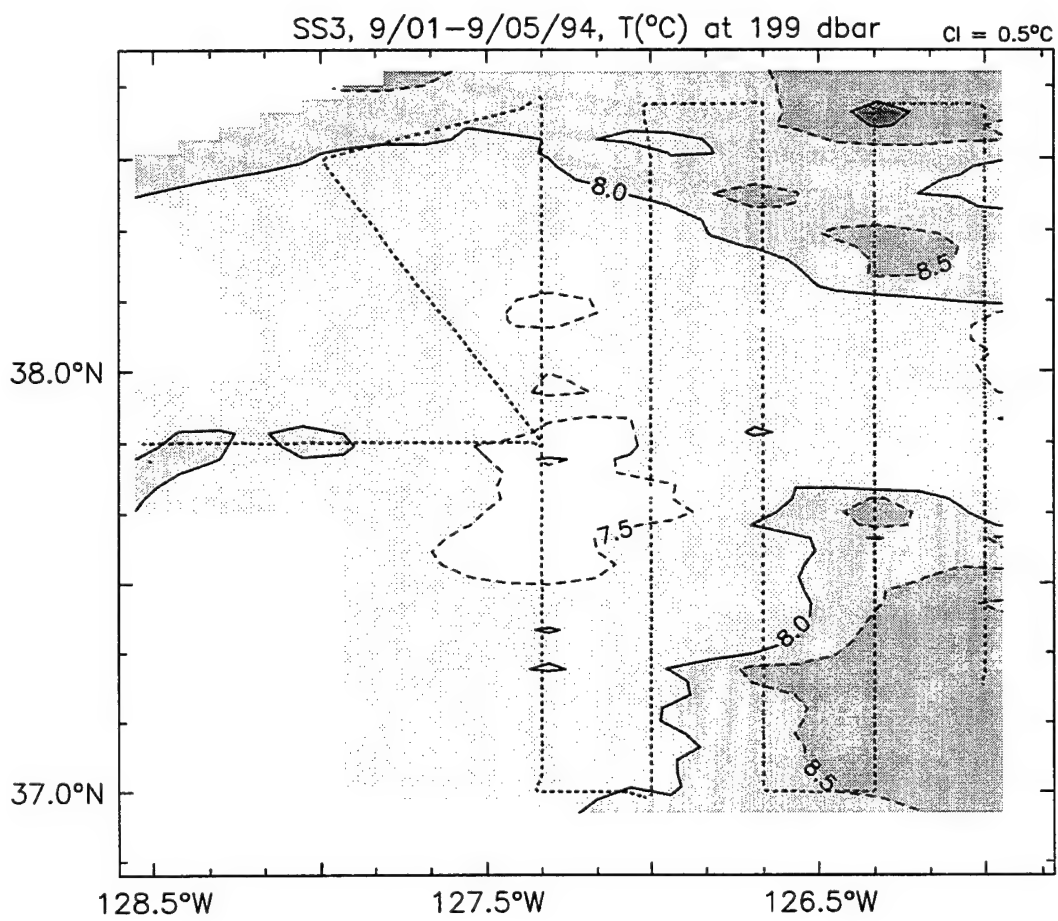


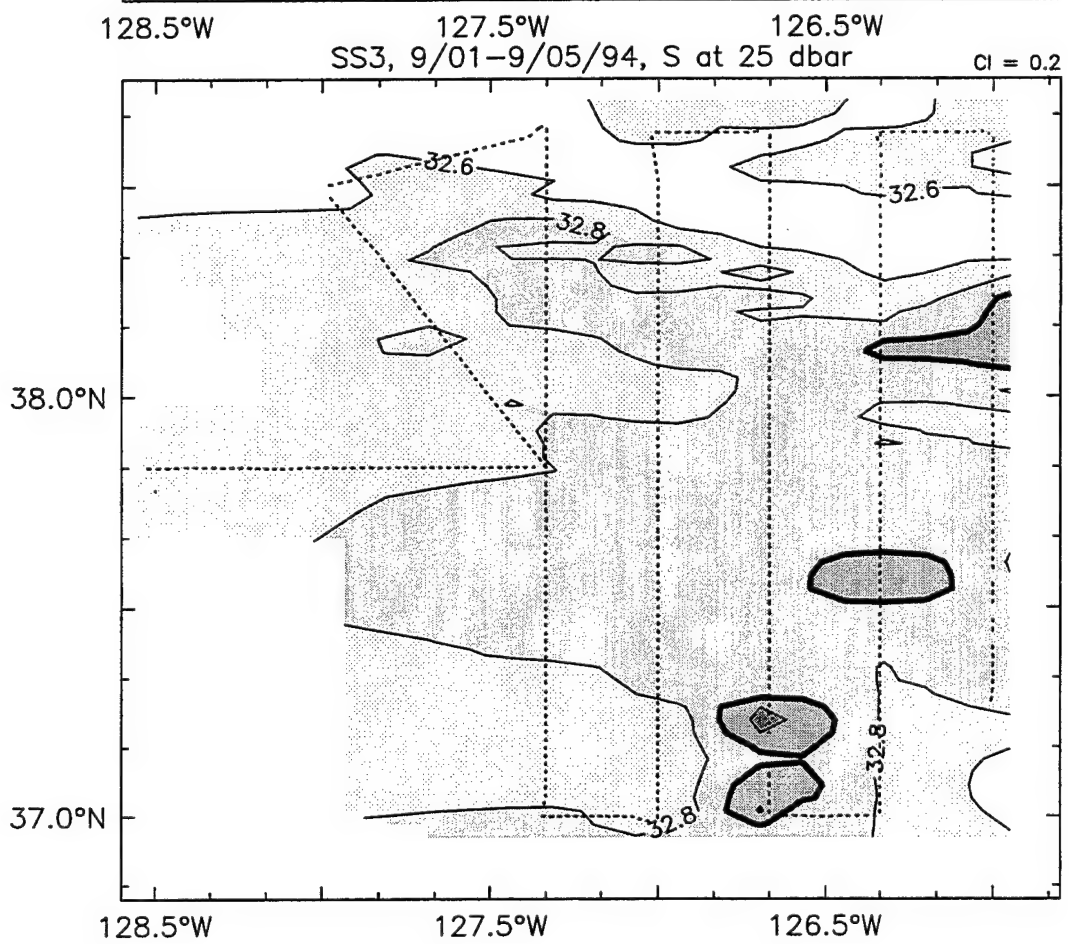
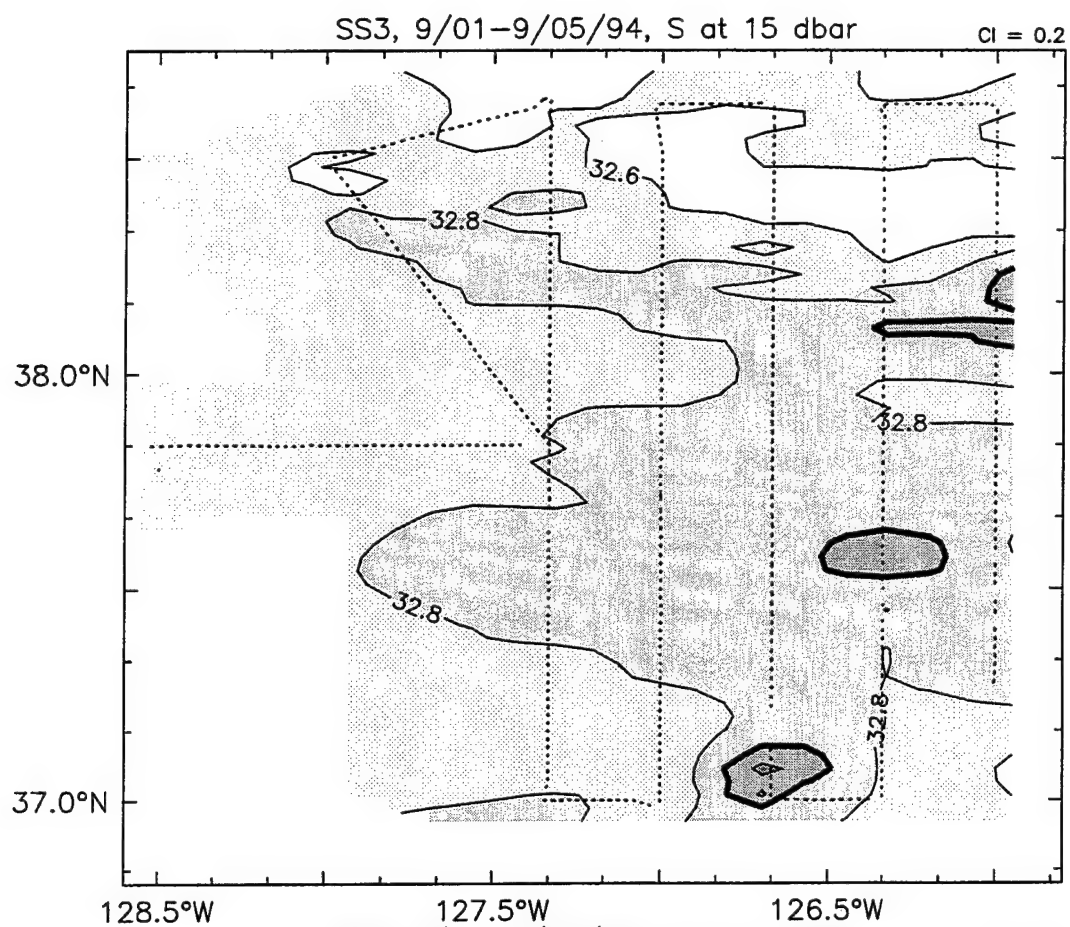


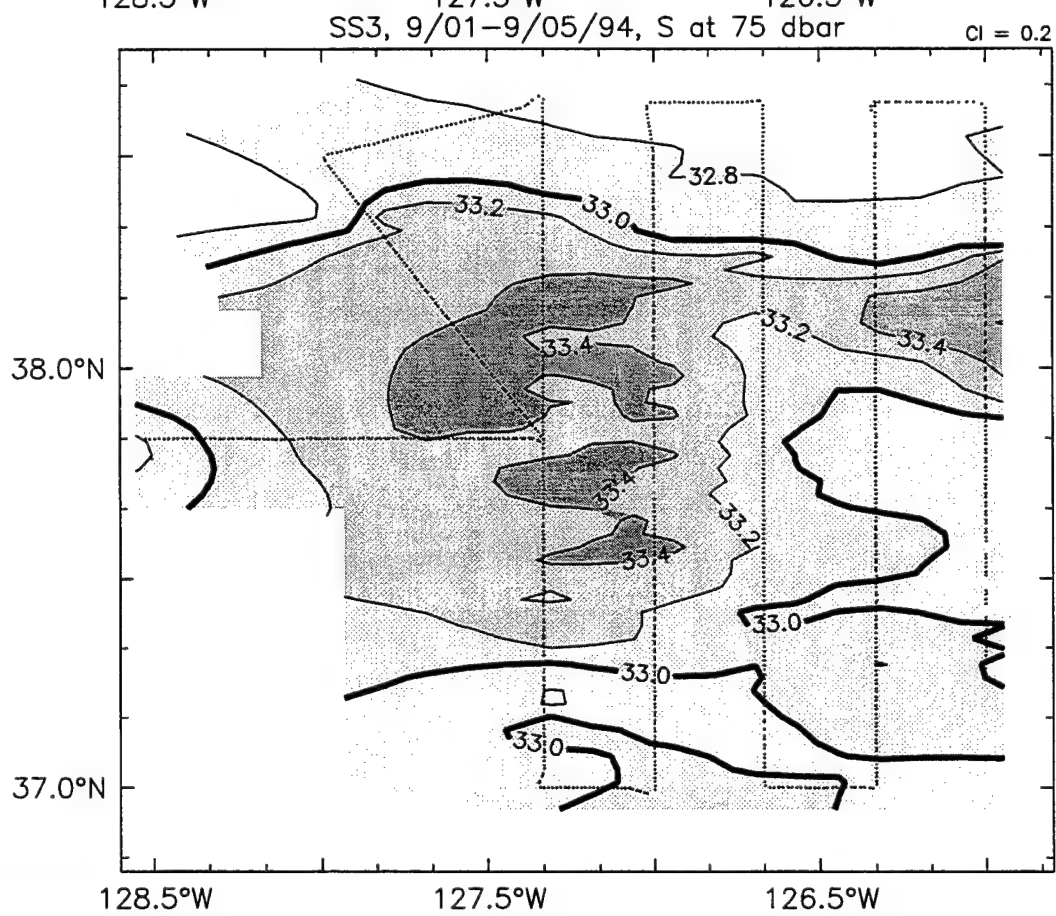
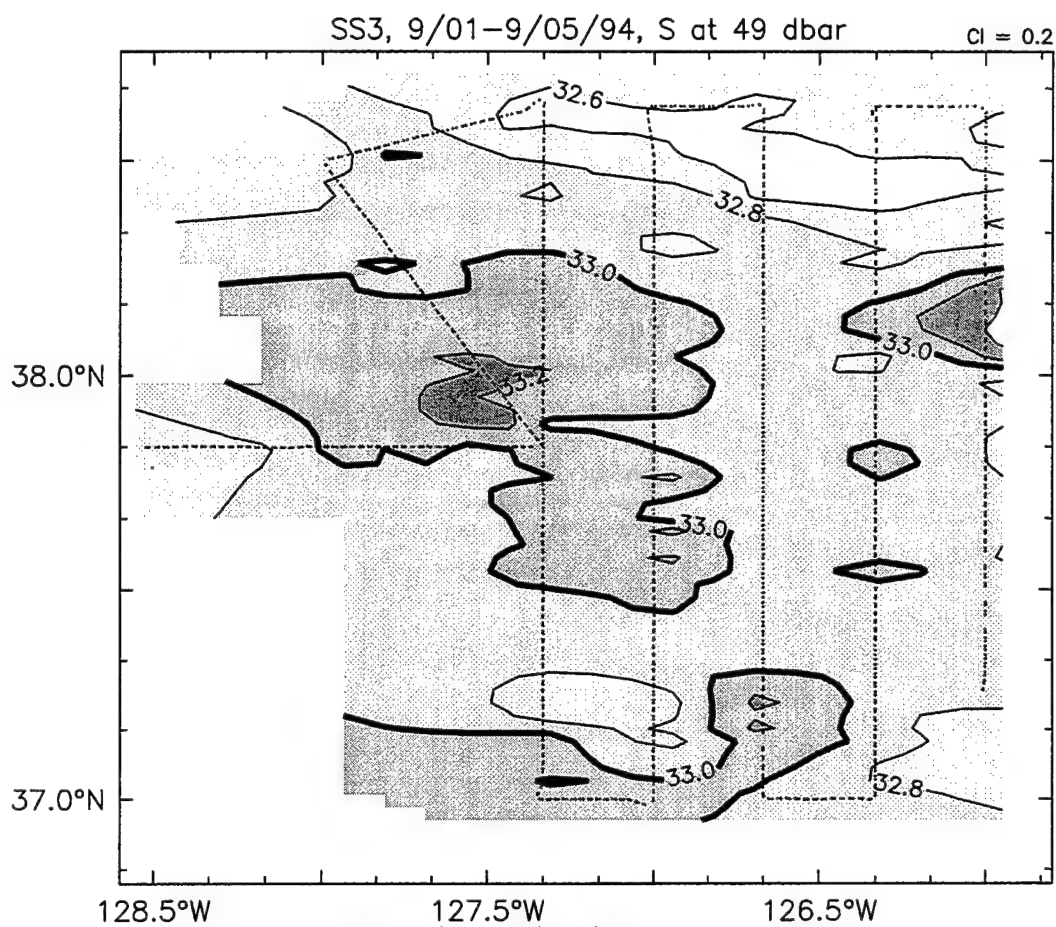


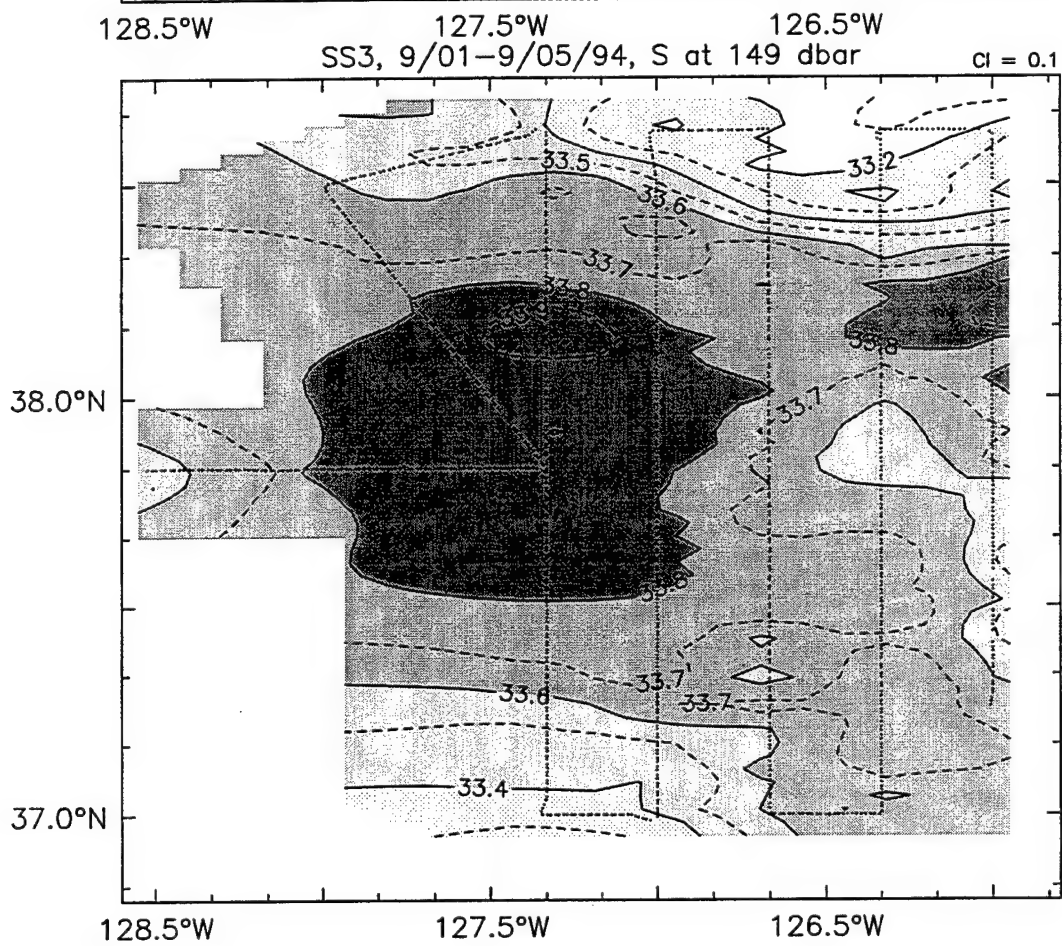
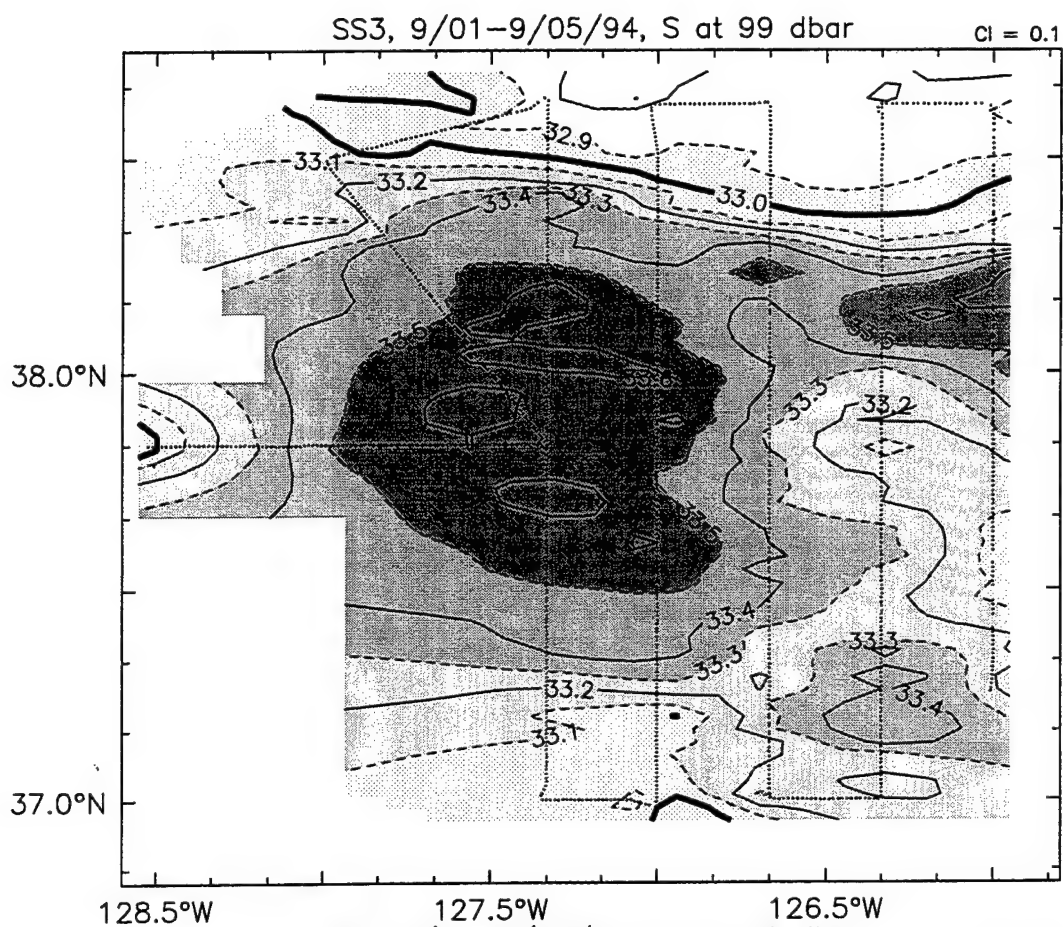


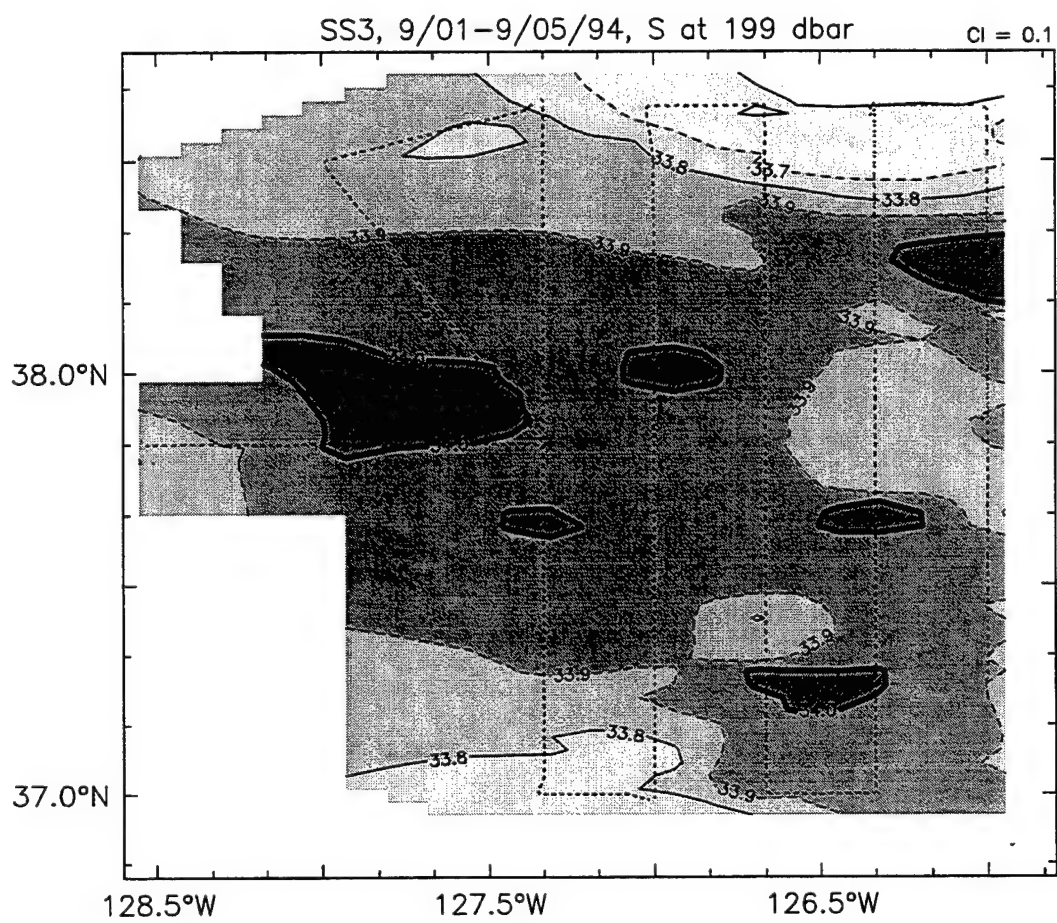


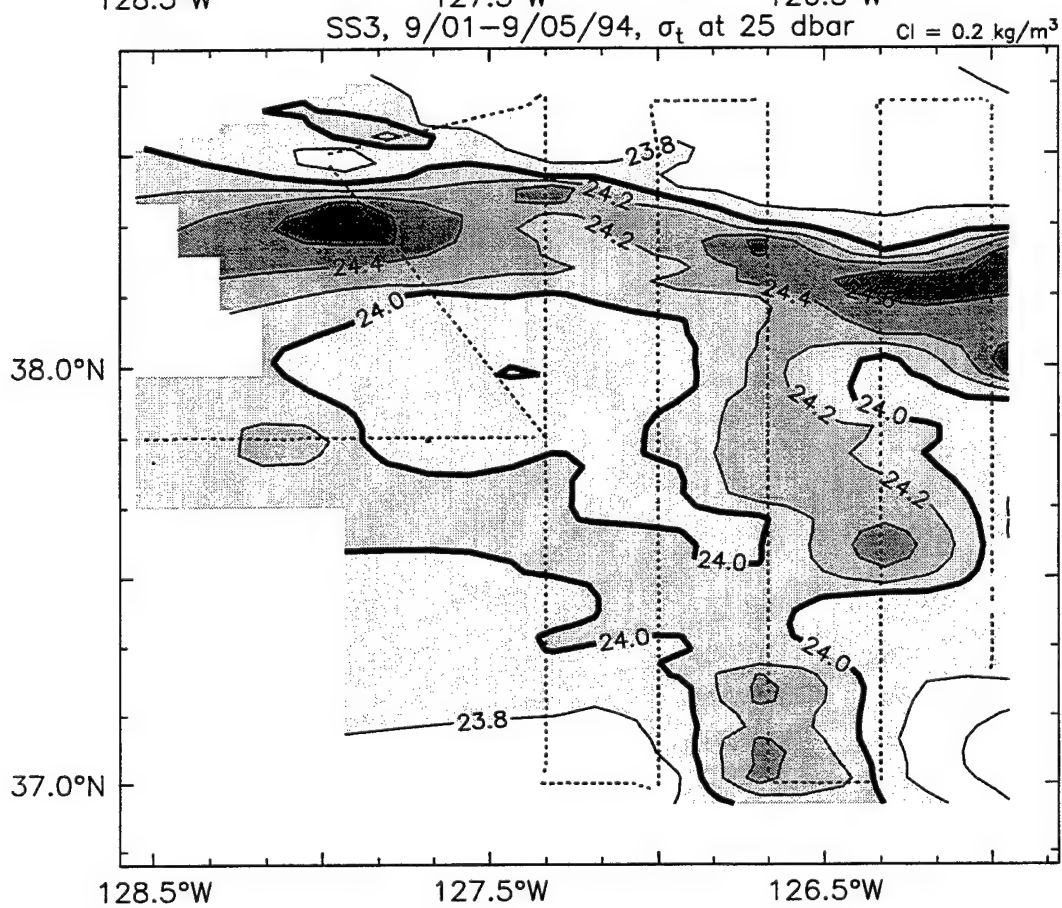
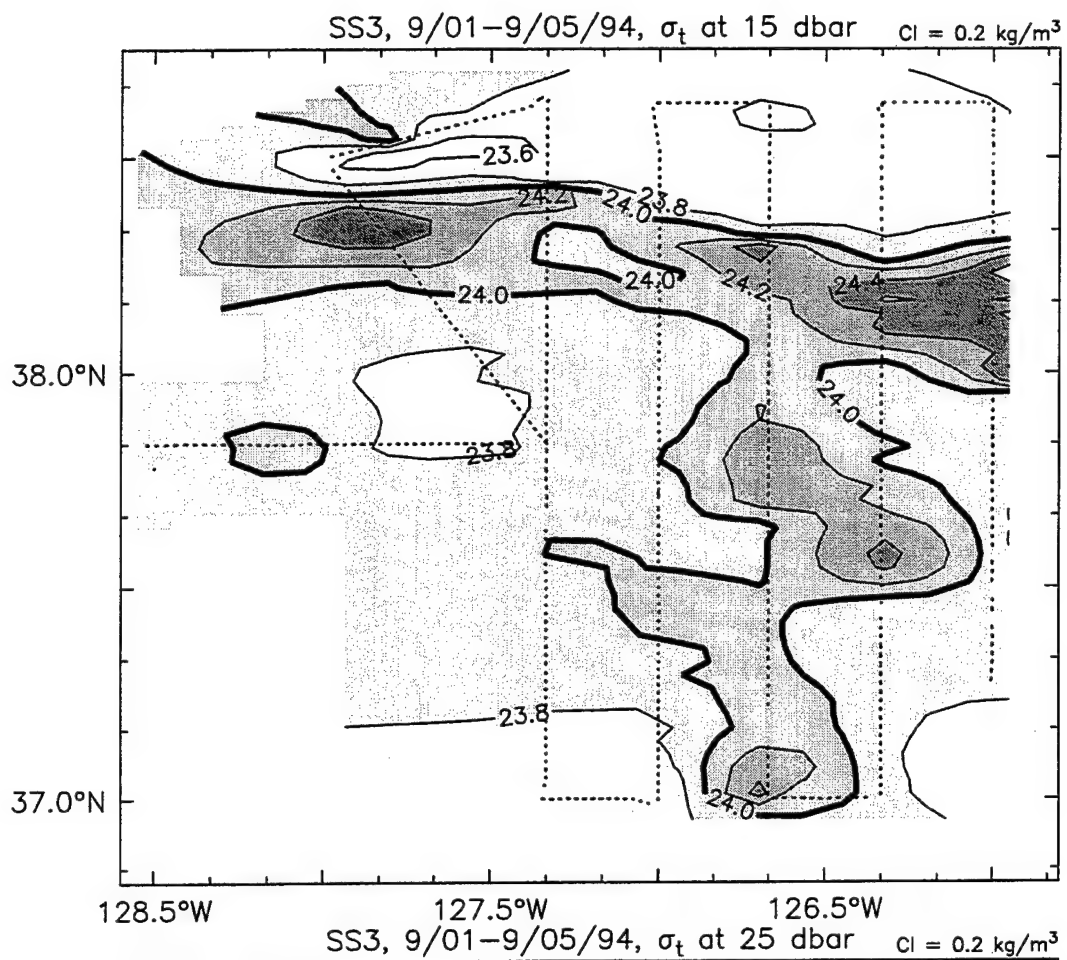




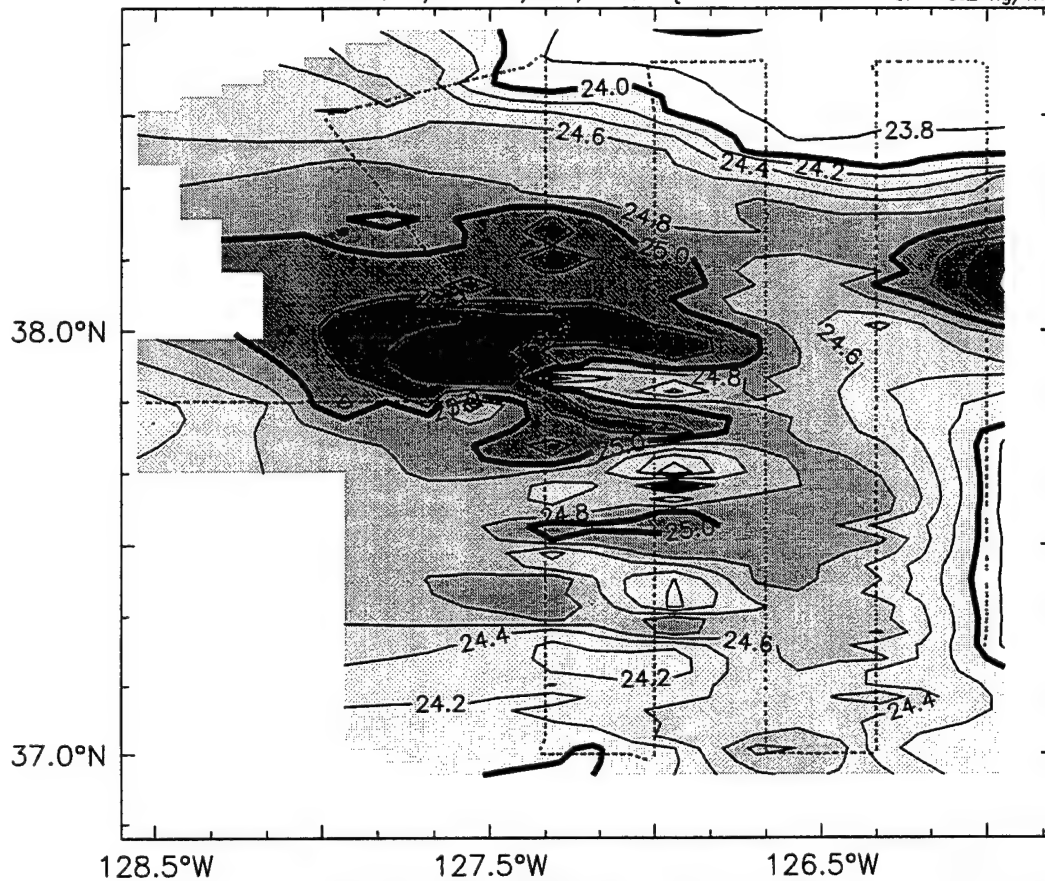




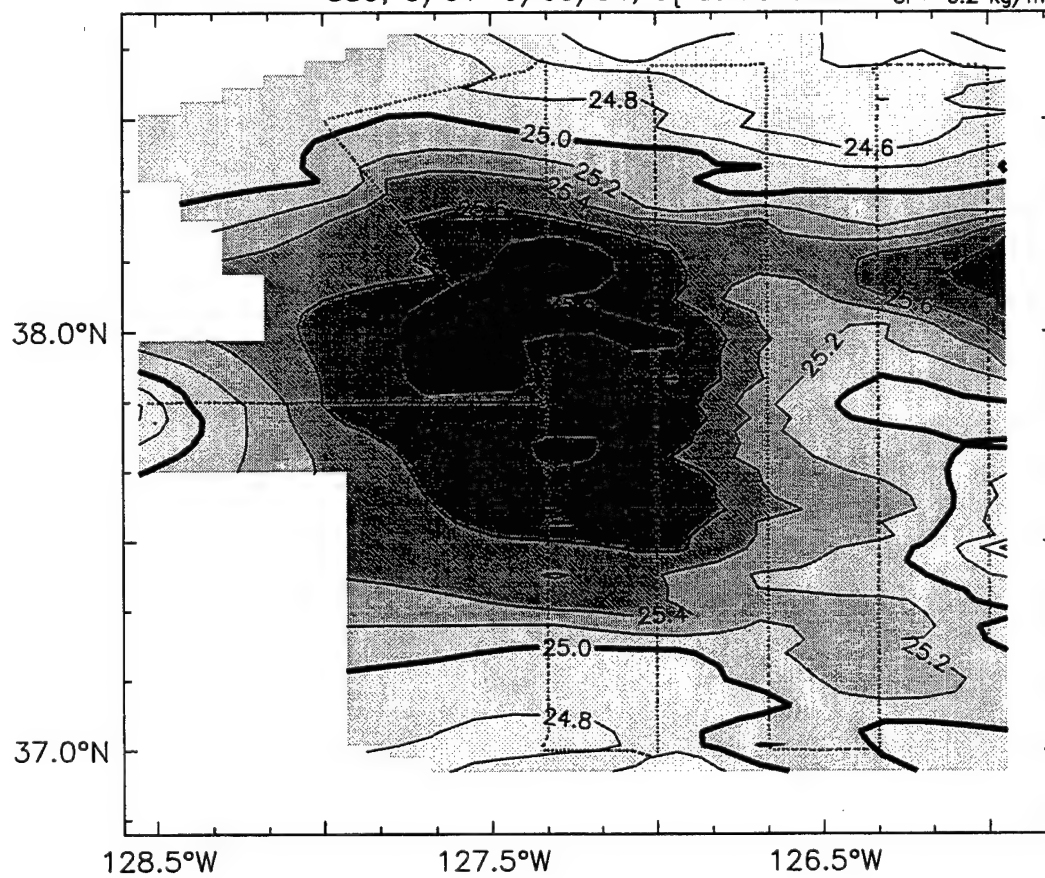


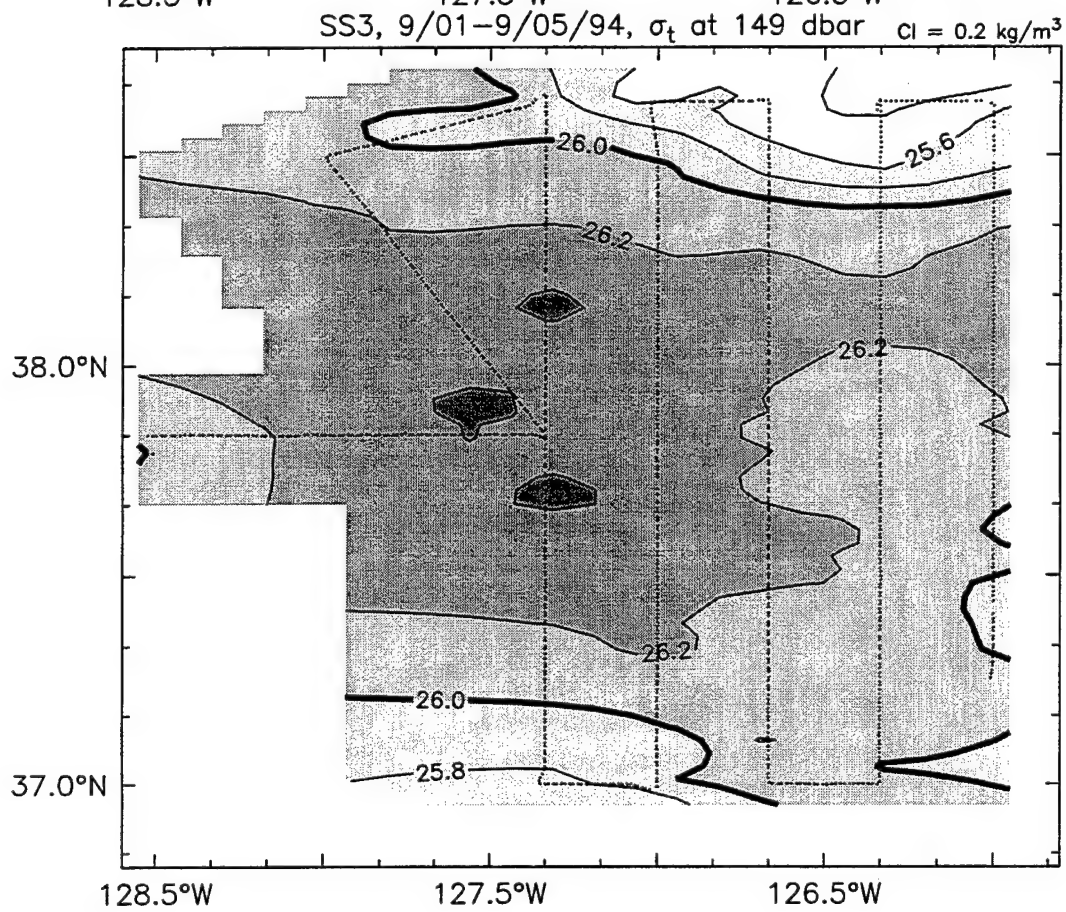
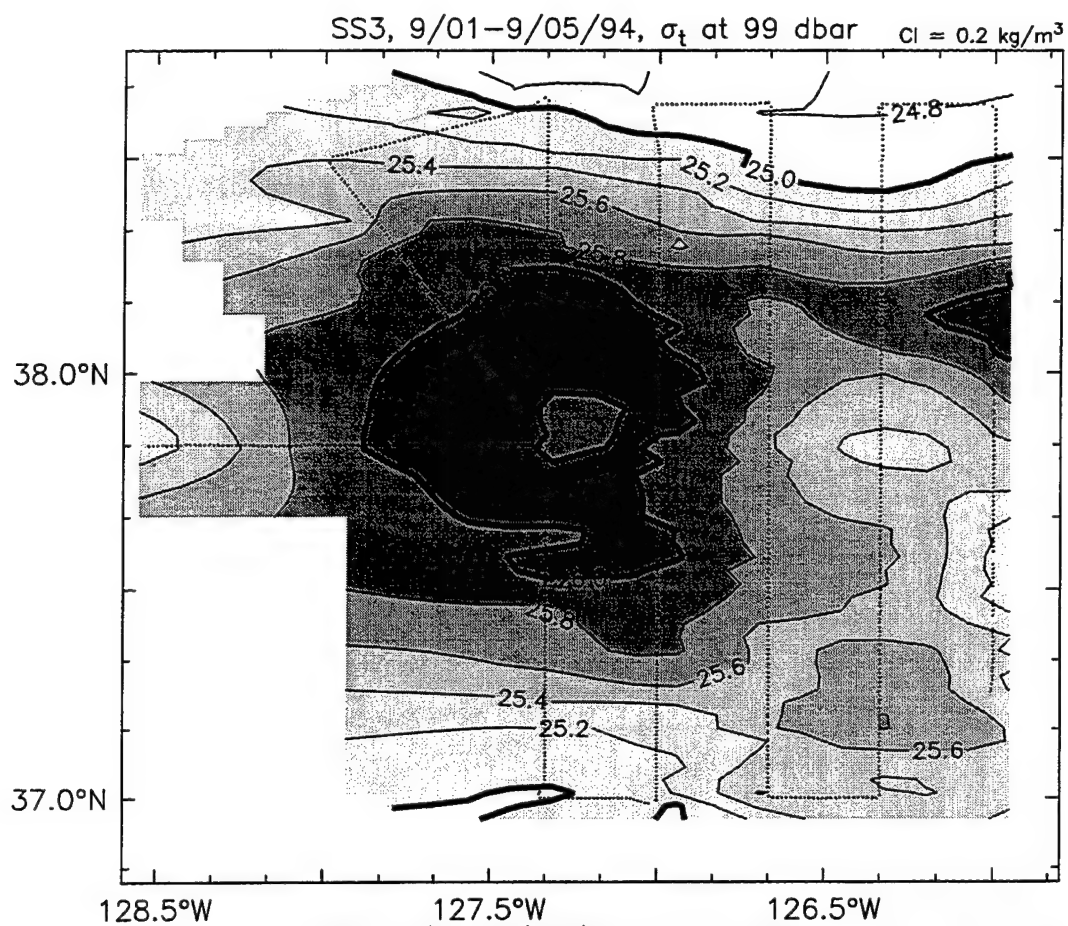


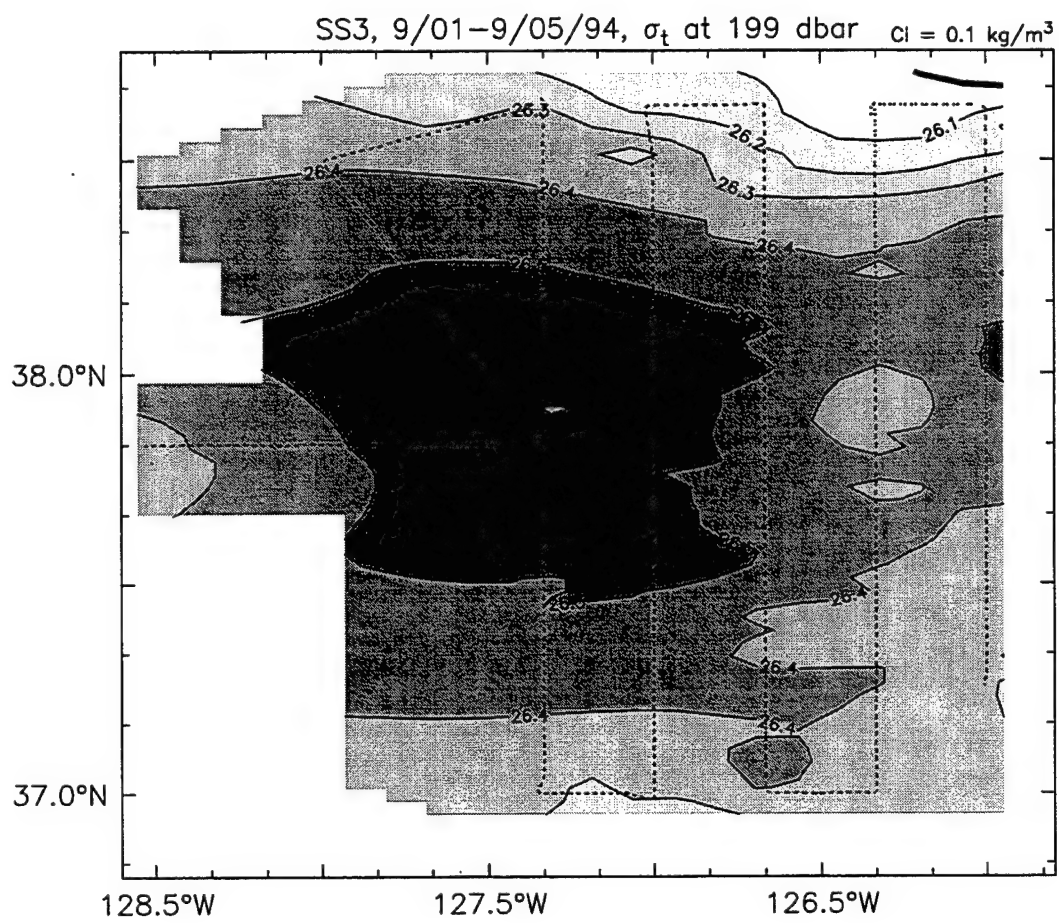
SS3, 9/01-9/05/94, σ_t at 49 dbar $cl = 0.2 \text{ kg/m}^3$

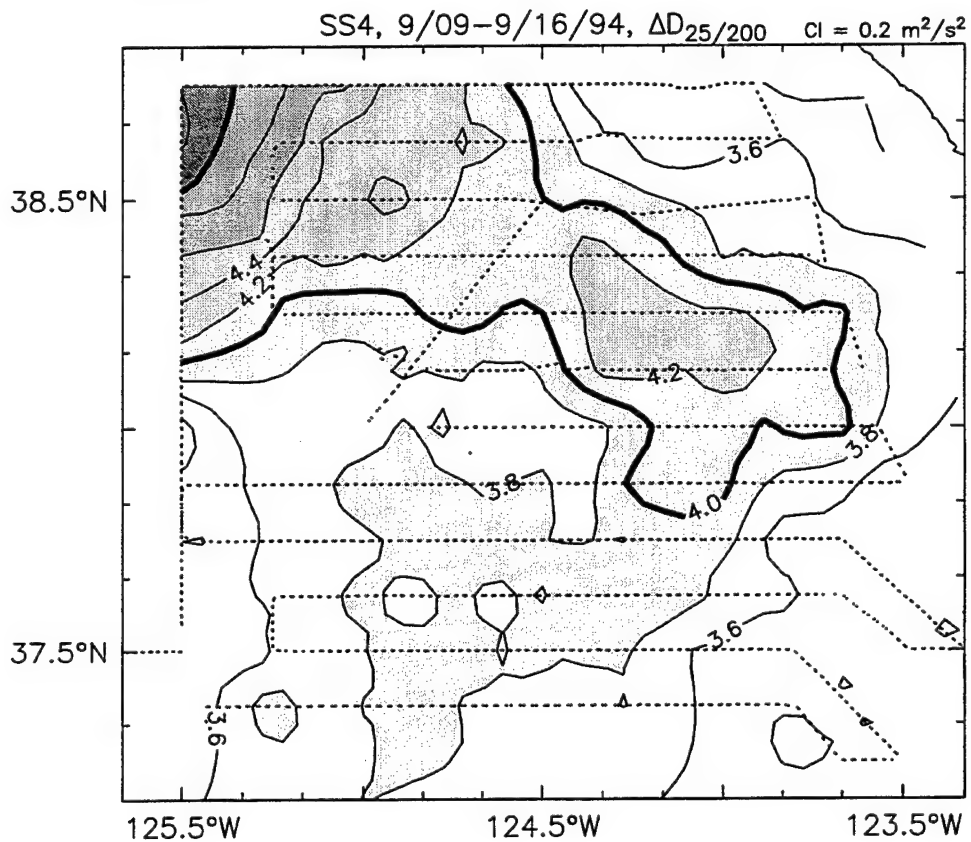
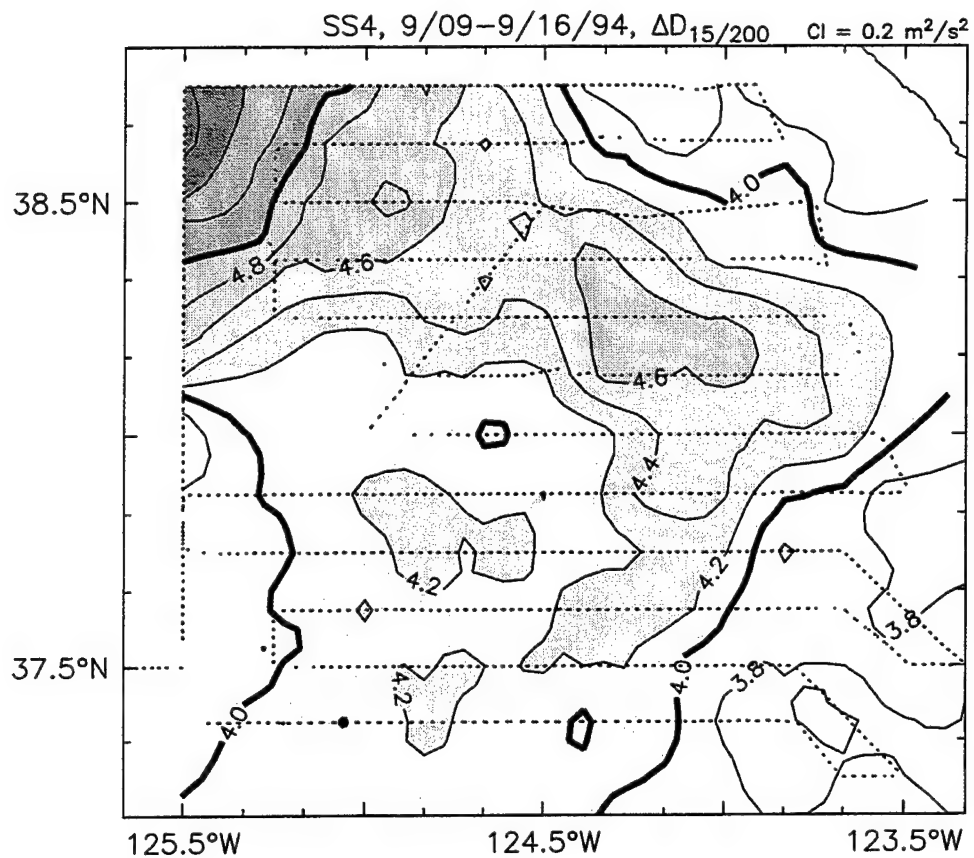


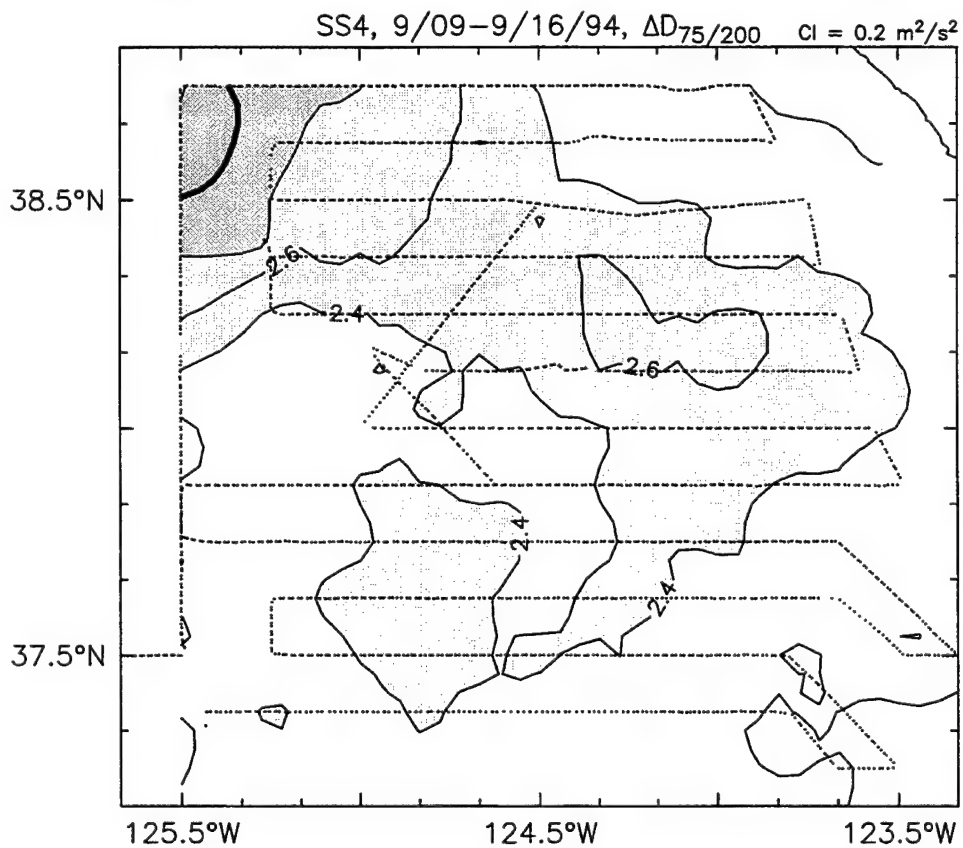
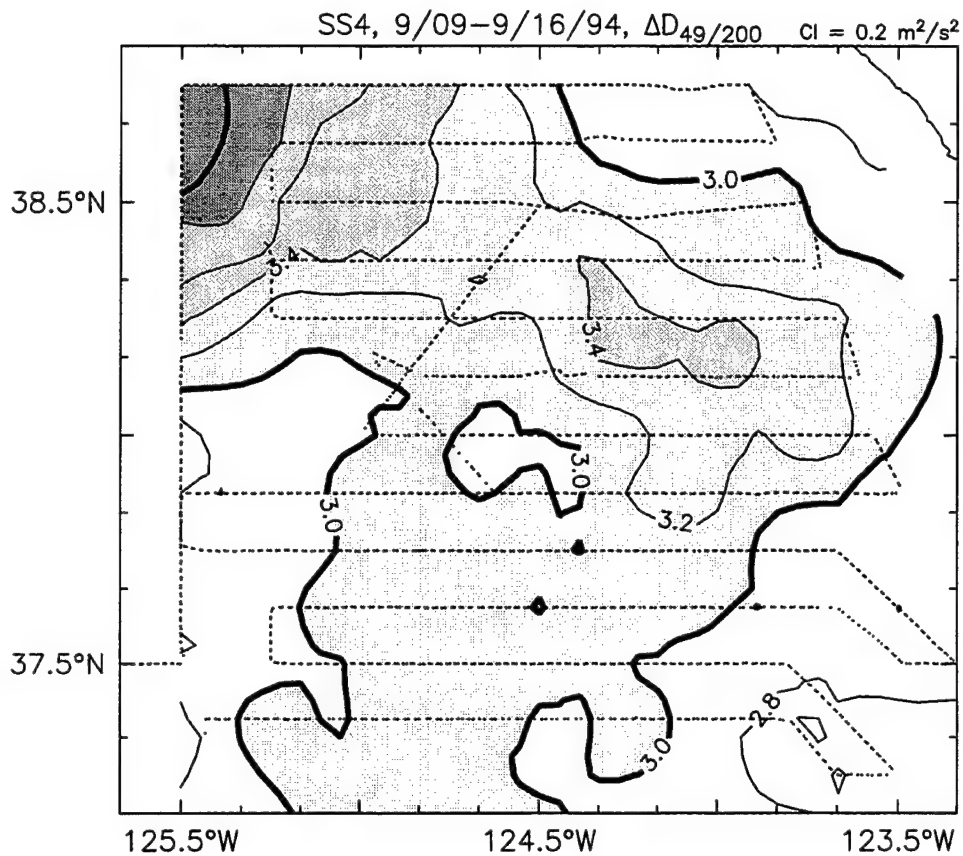
SS3, 9/01-9/05/94, σ_t at 75 dbar $cl = 0.2 \text{ kg/m}^3$

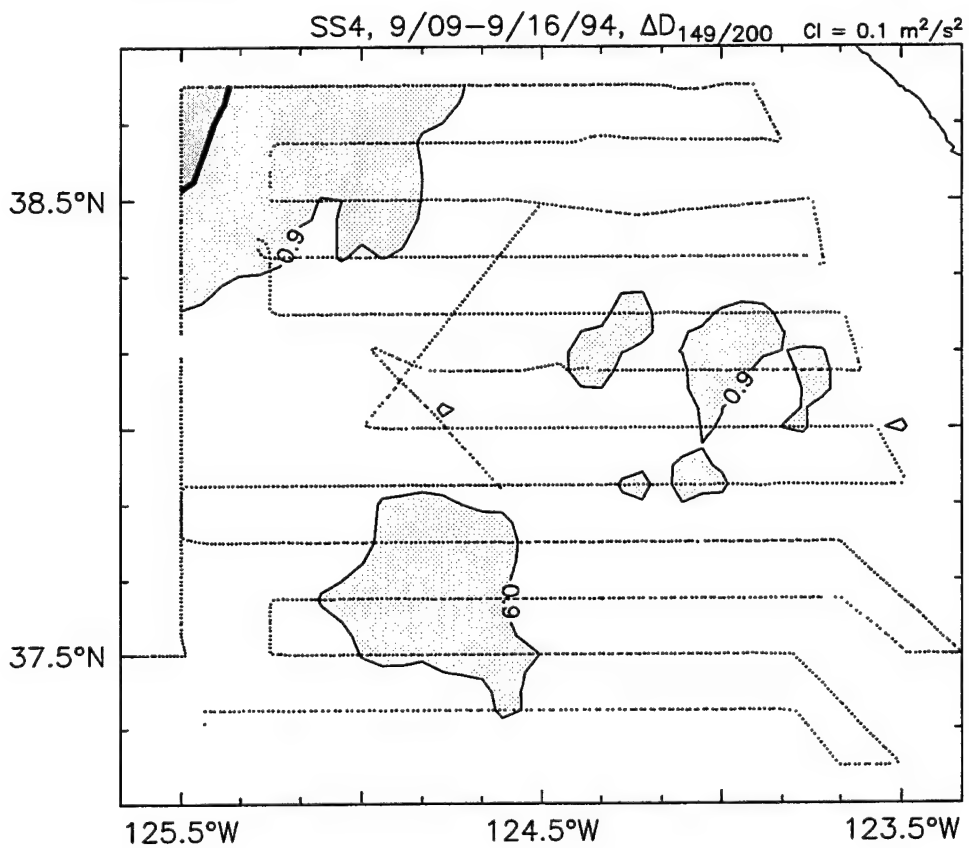
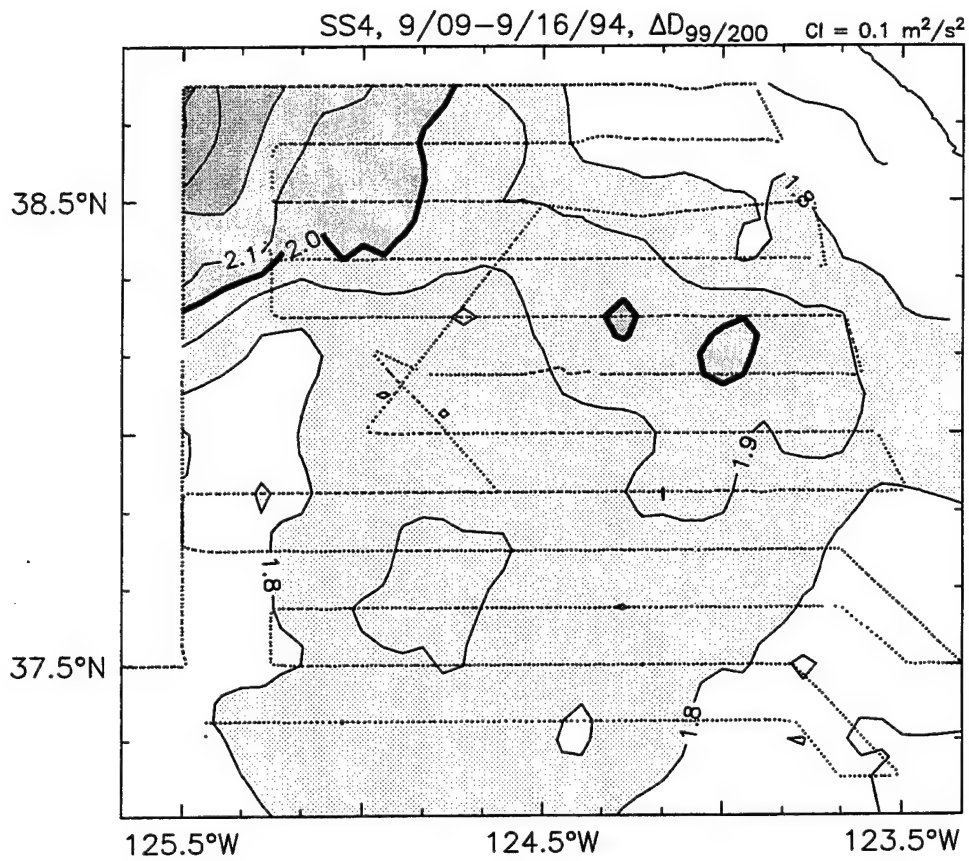


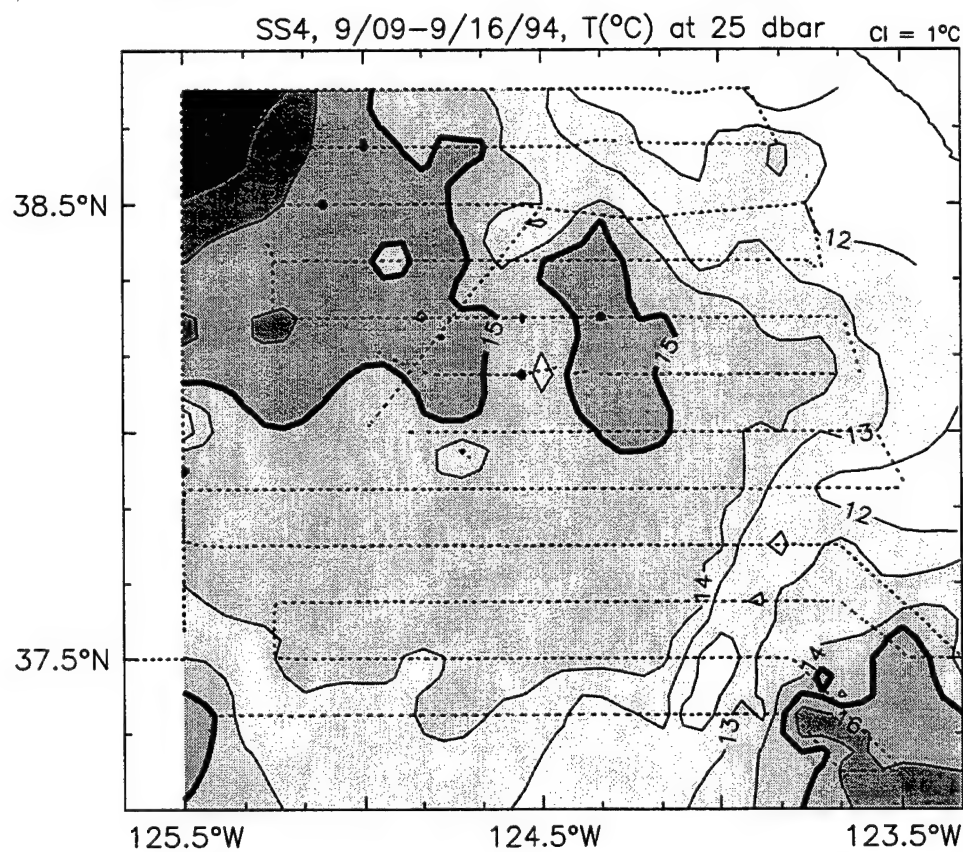
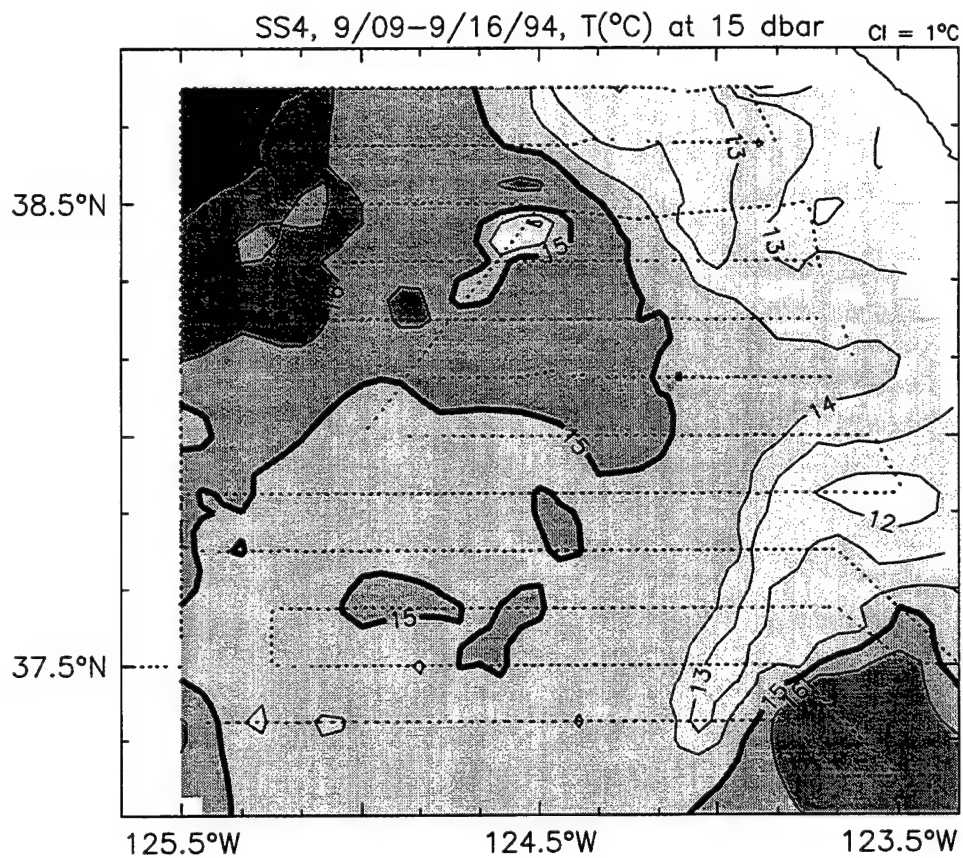


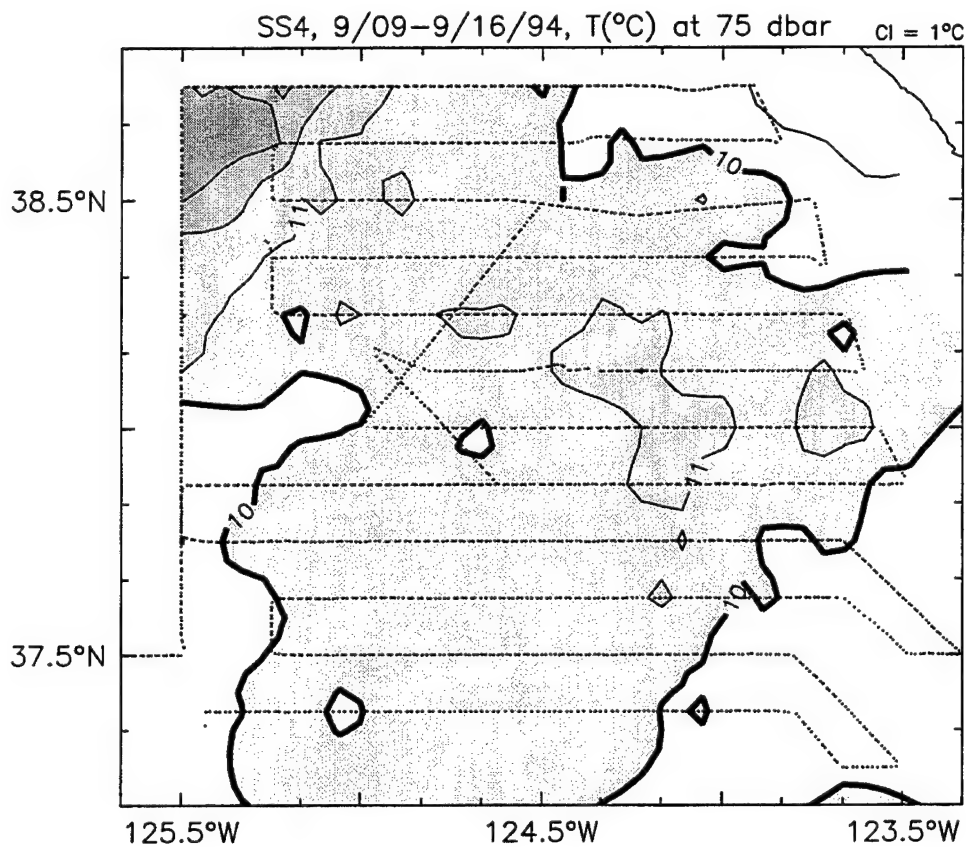
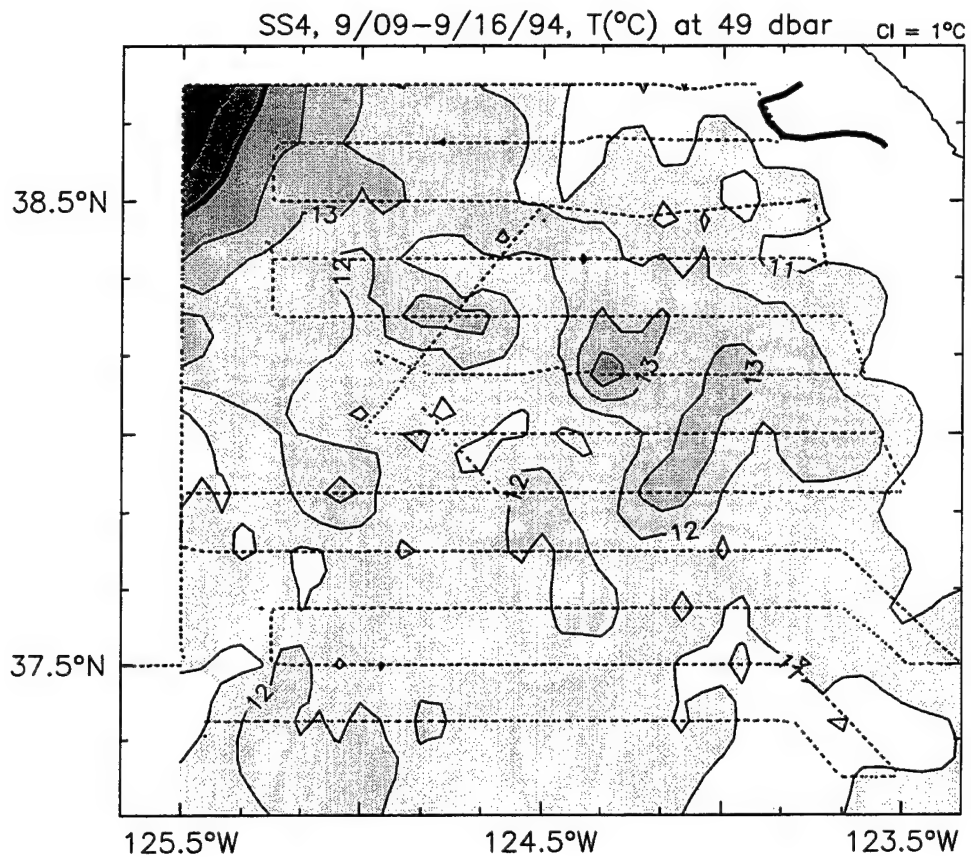


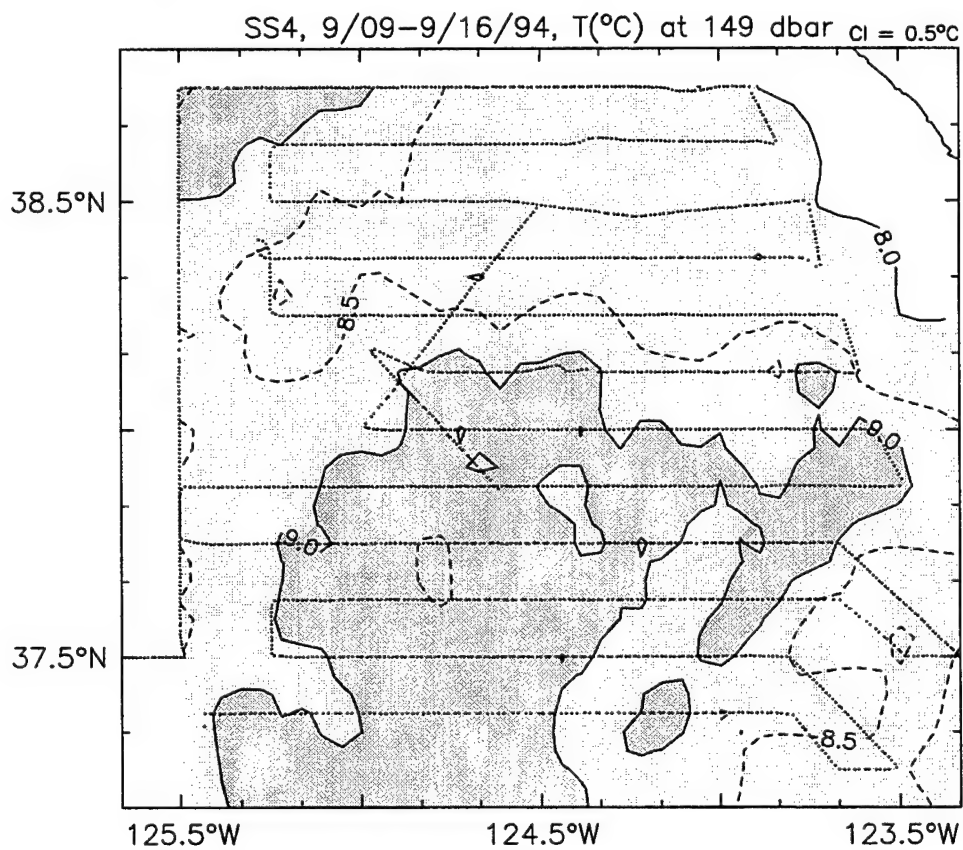
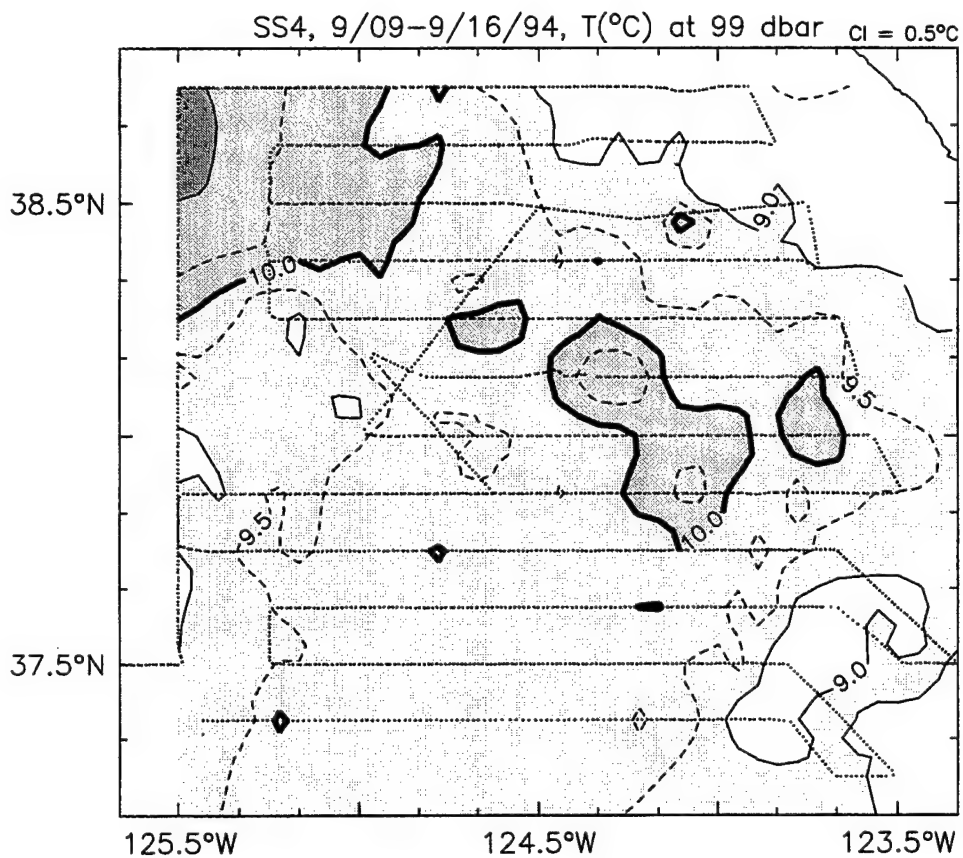


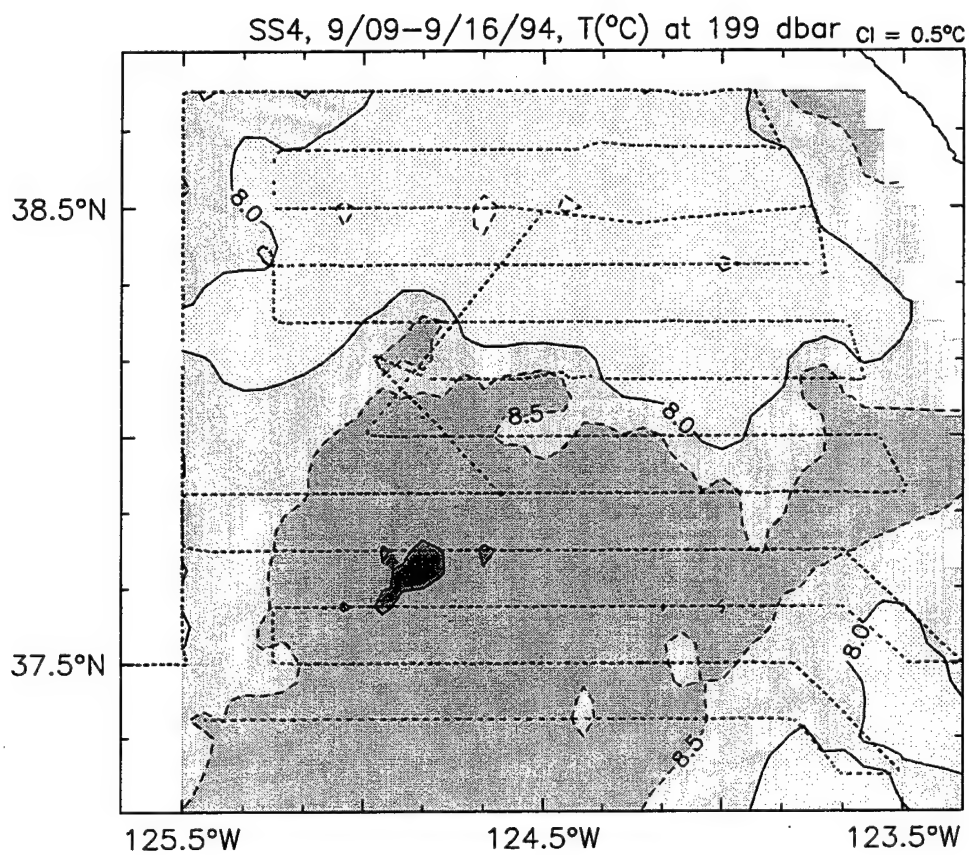


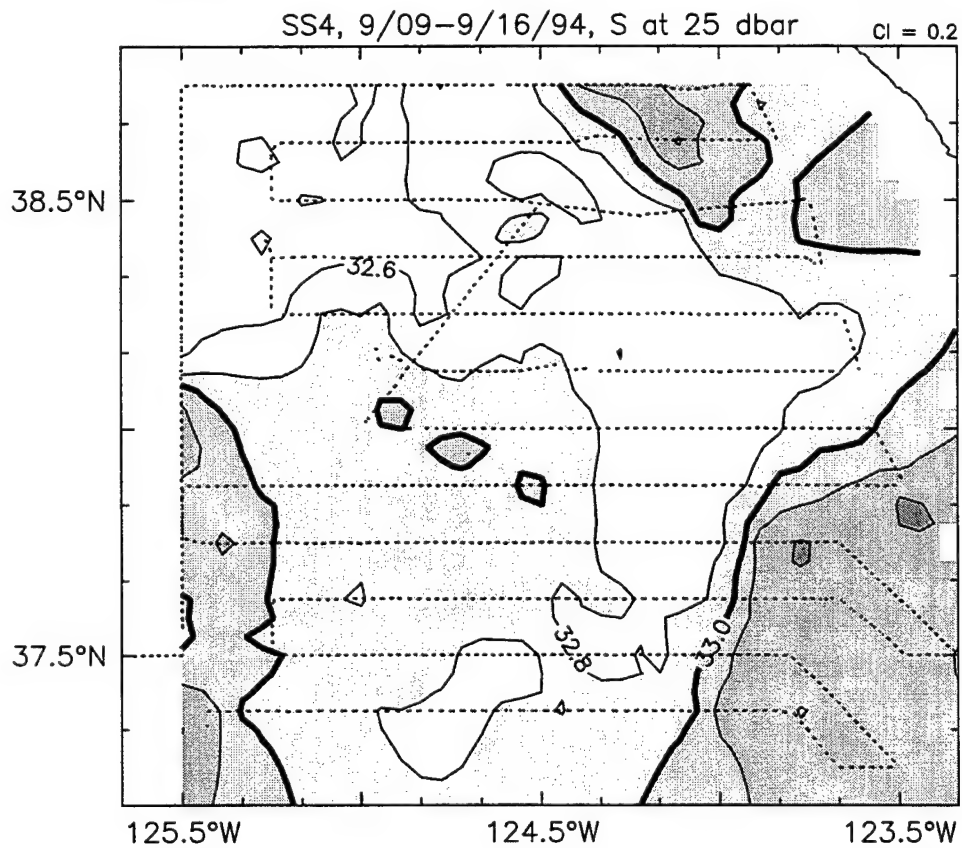
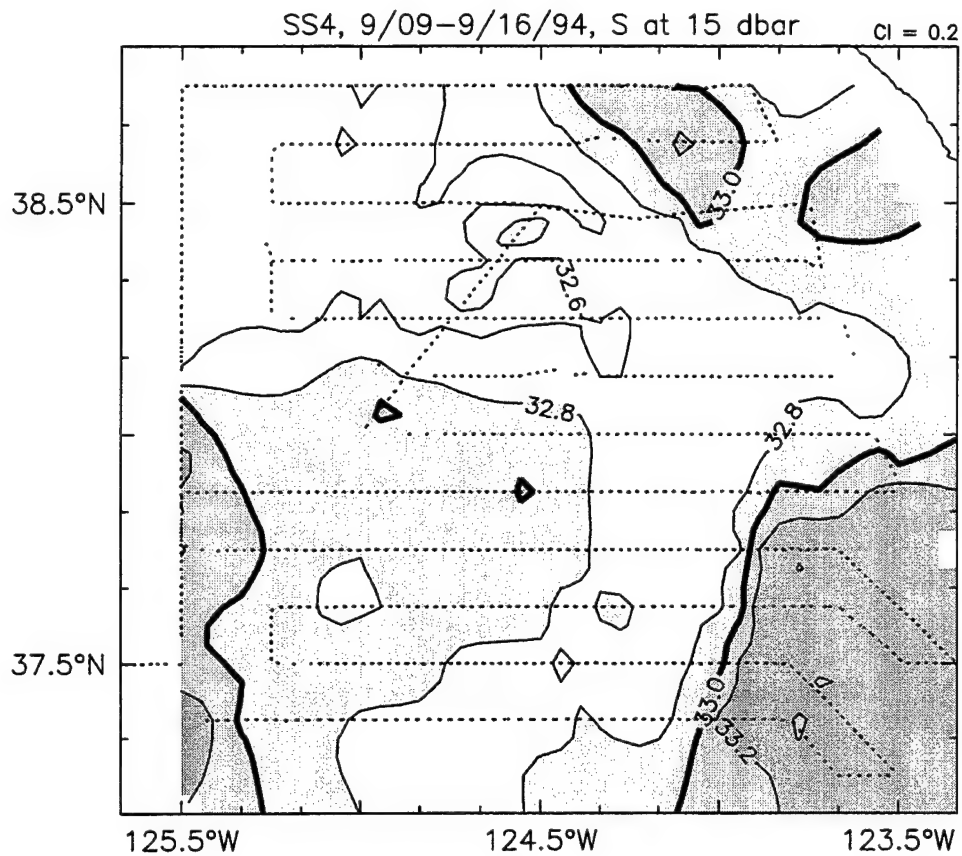


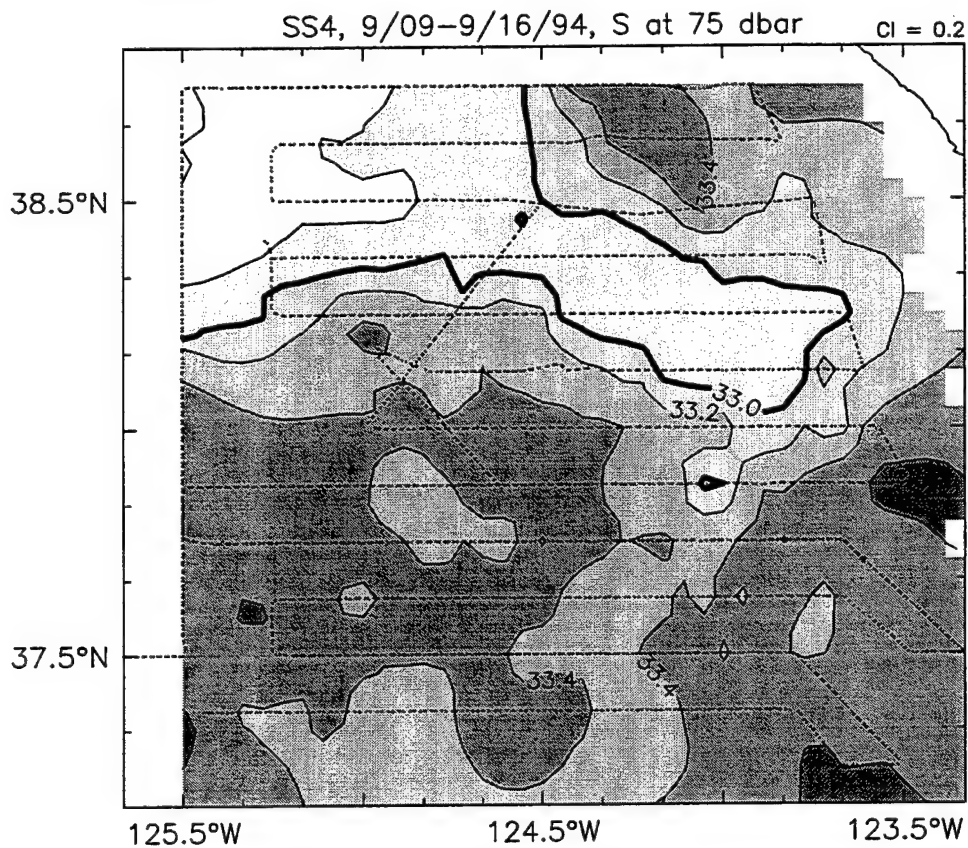
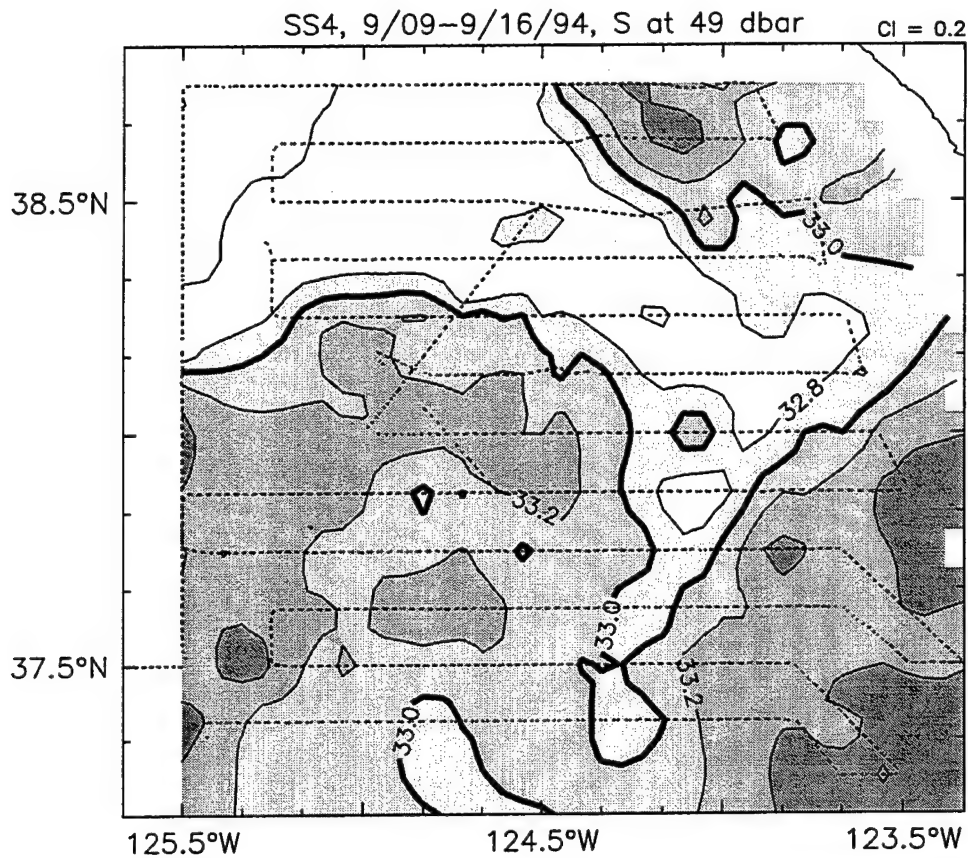


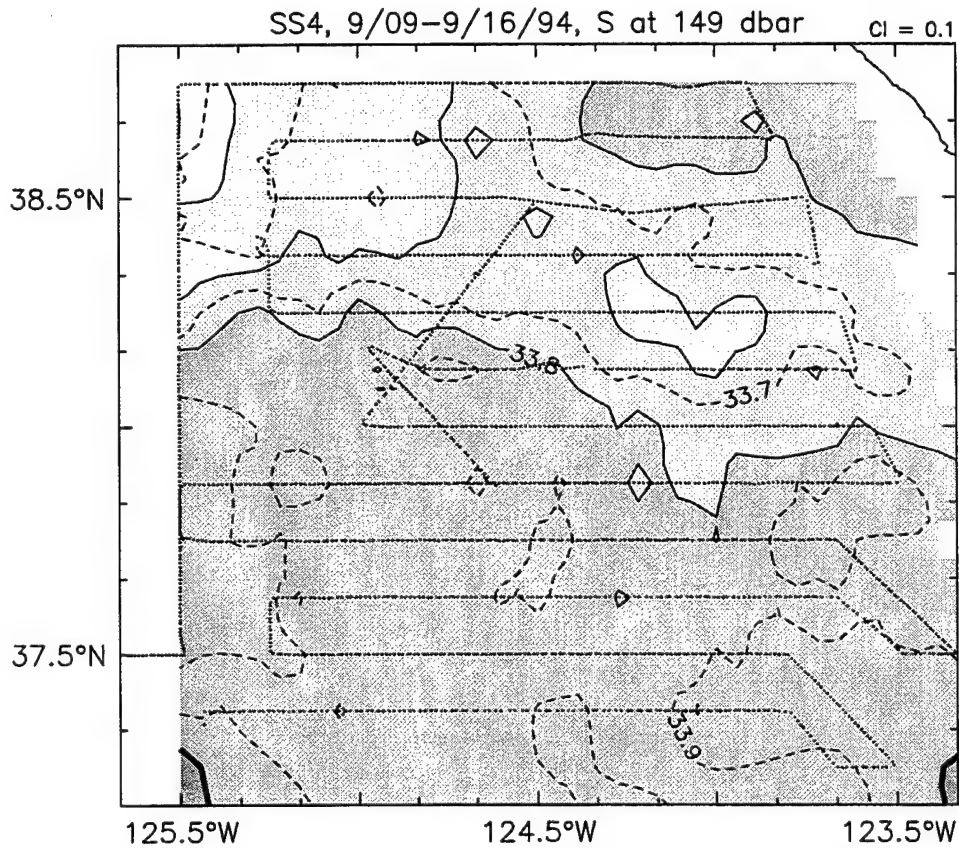
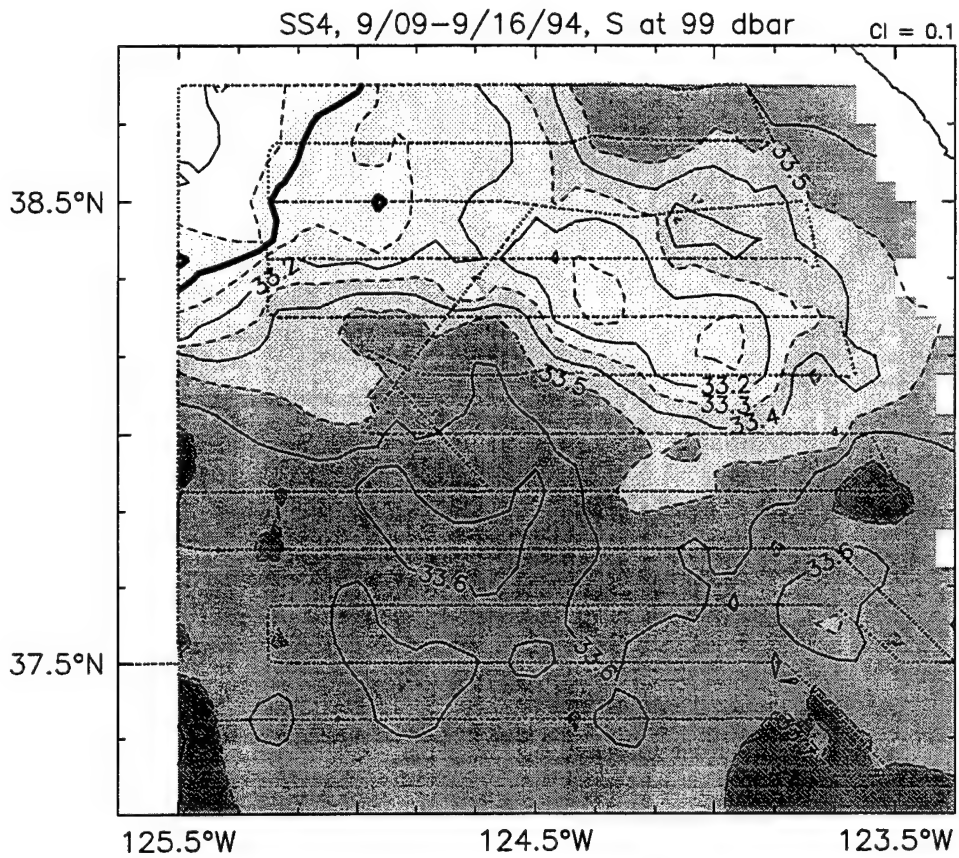


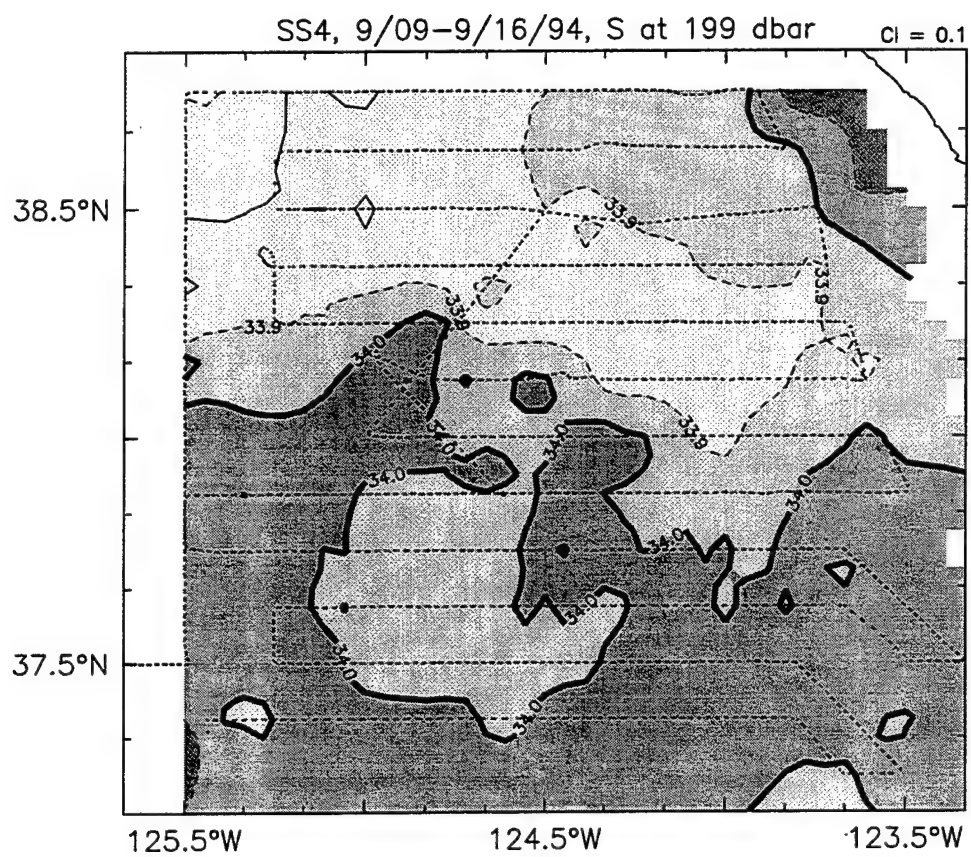


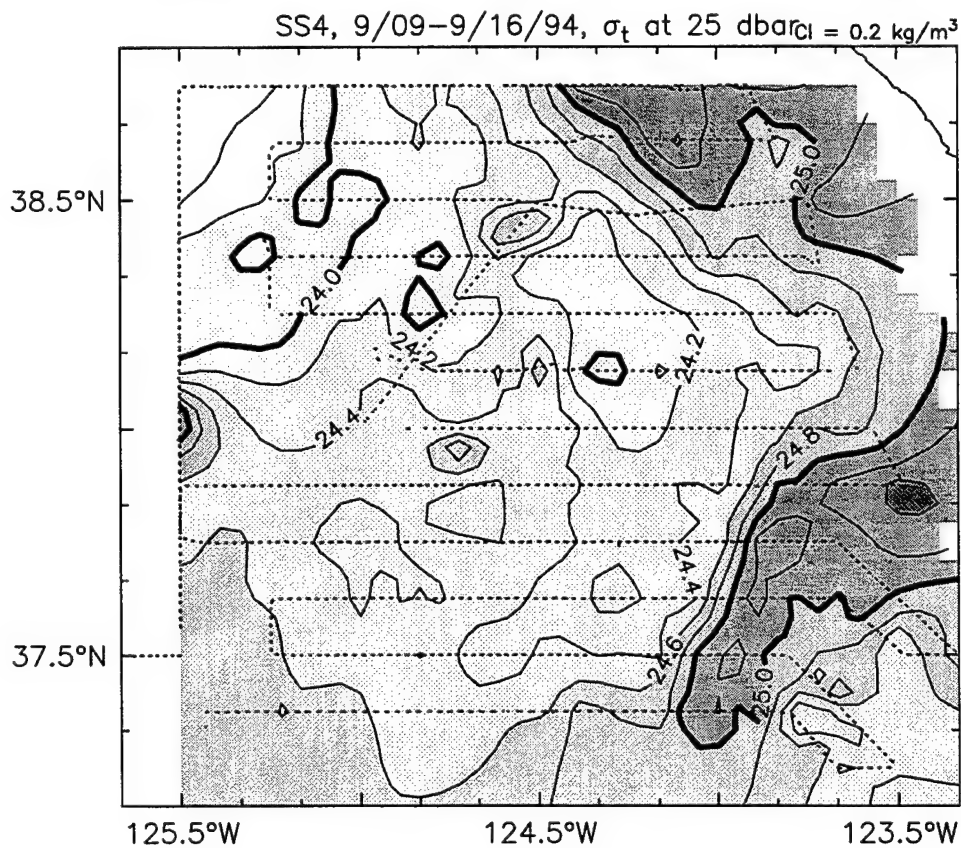
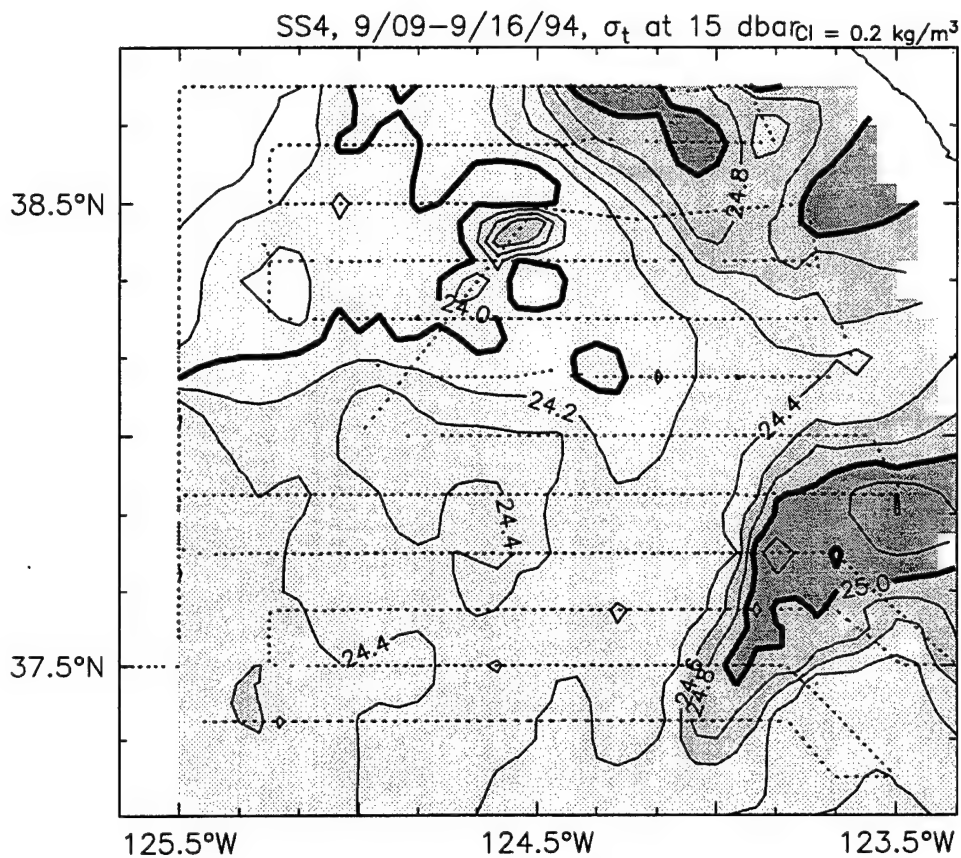


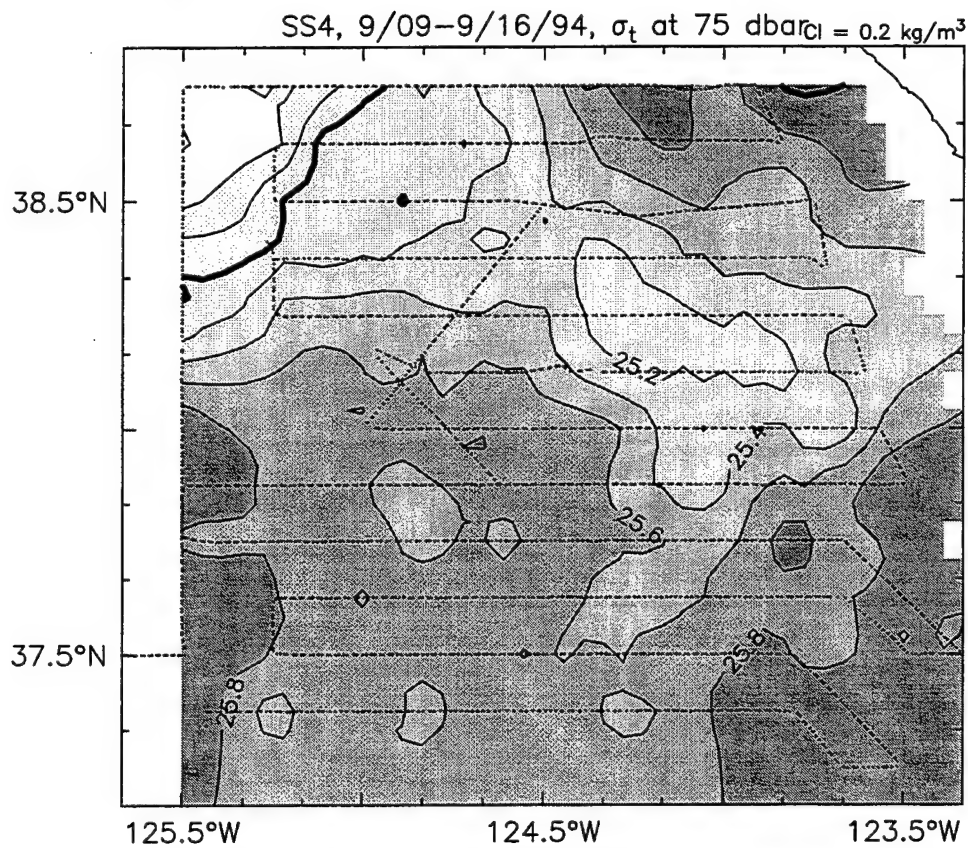
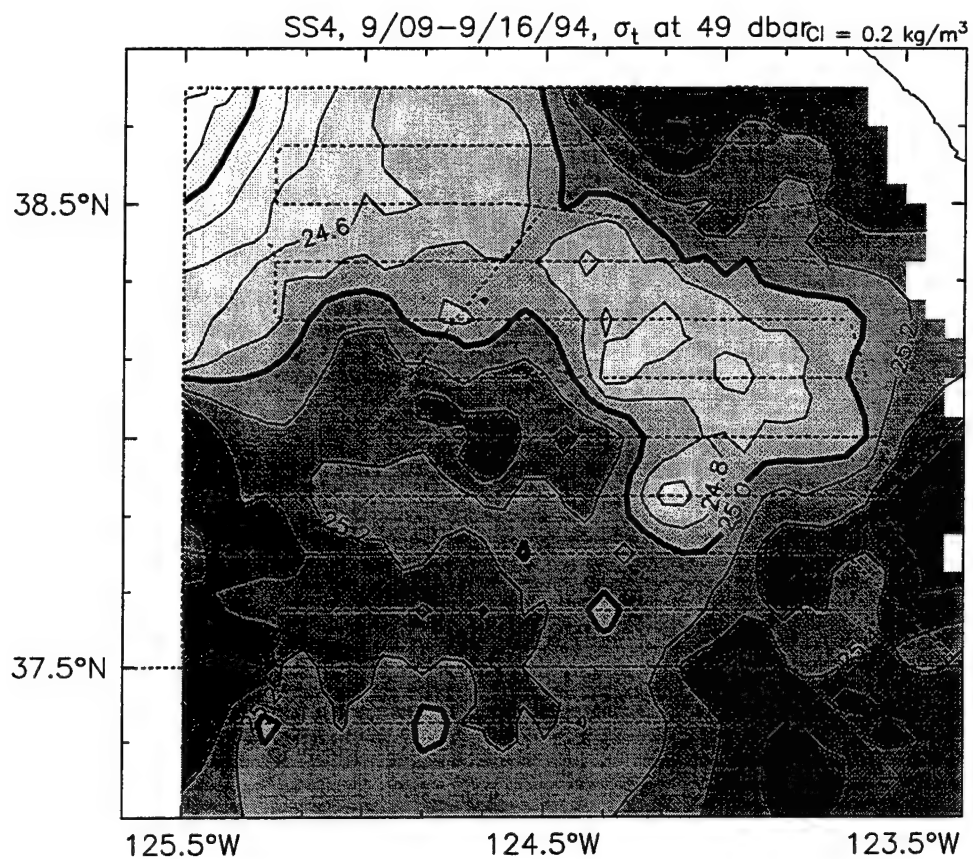


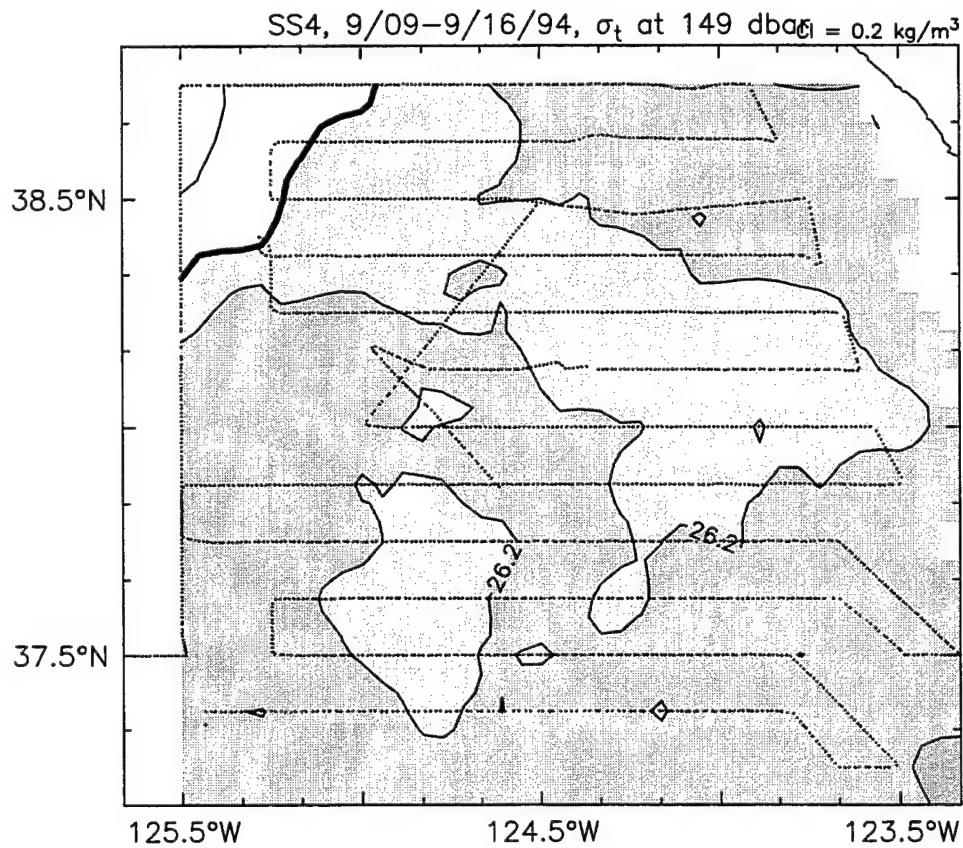
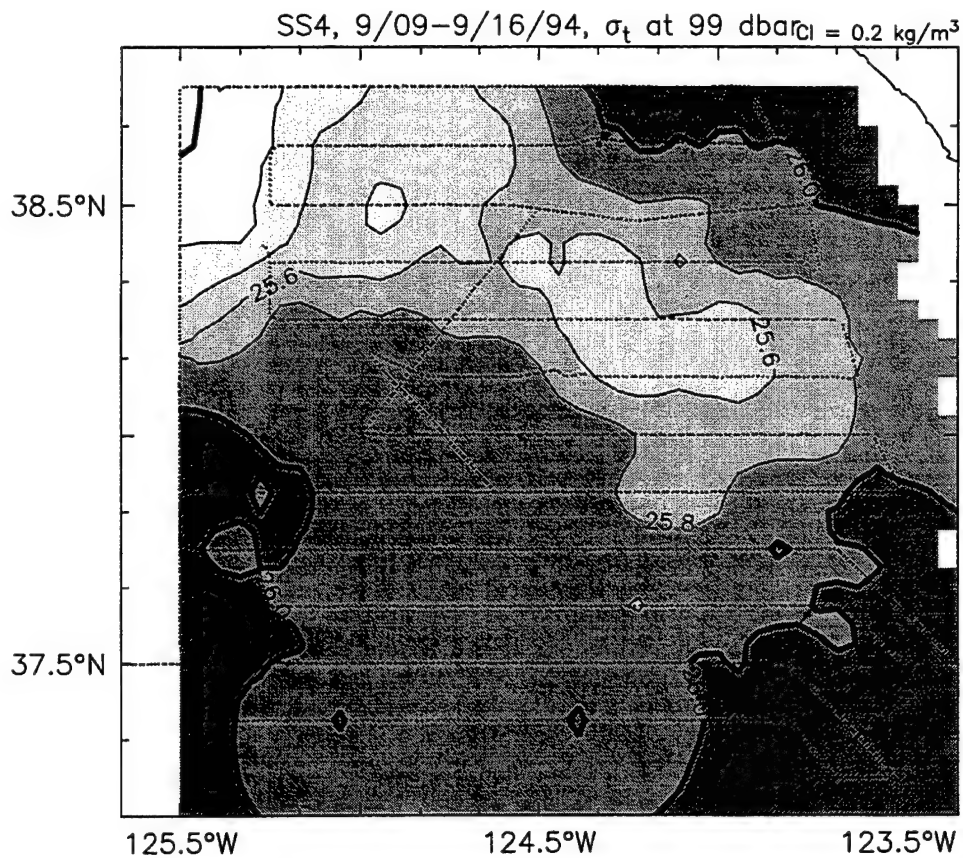


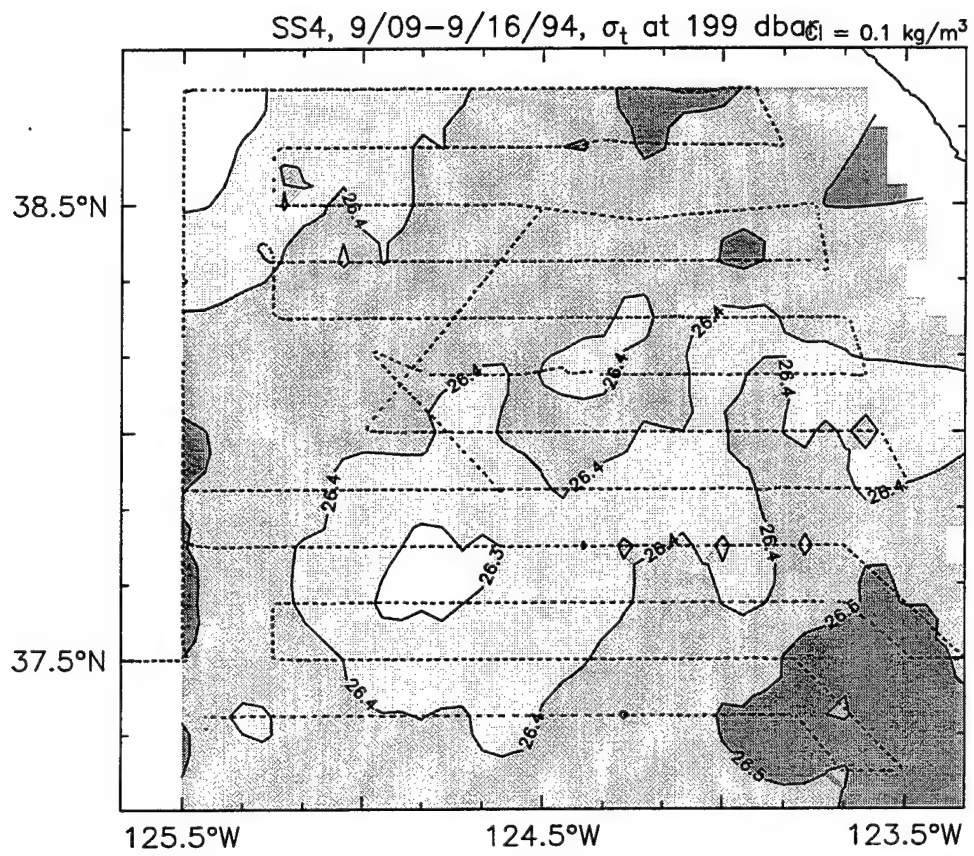






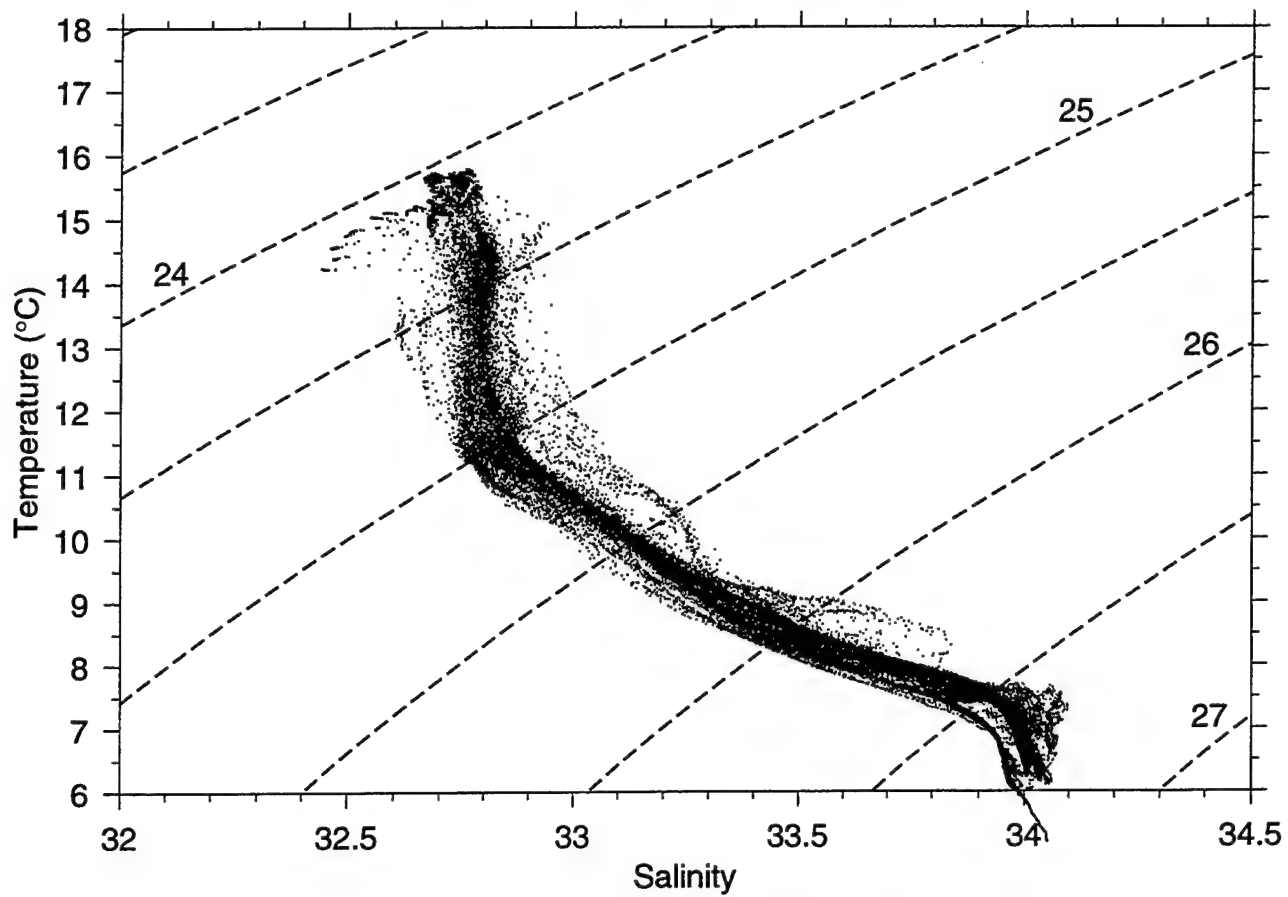




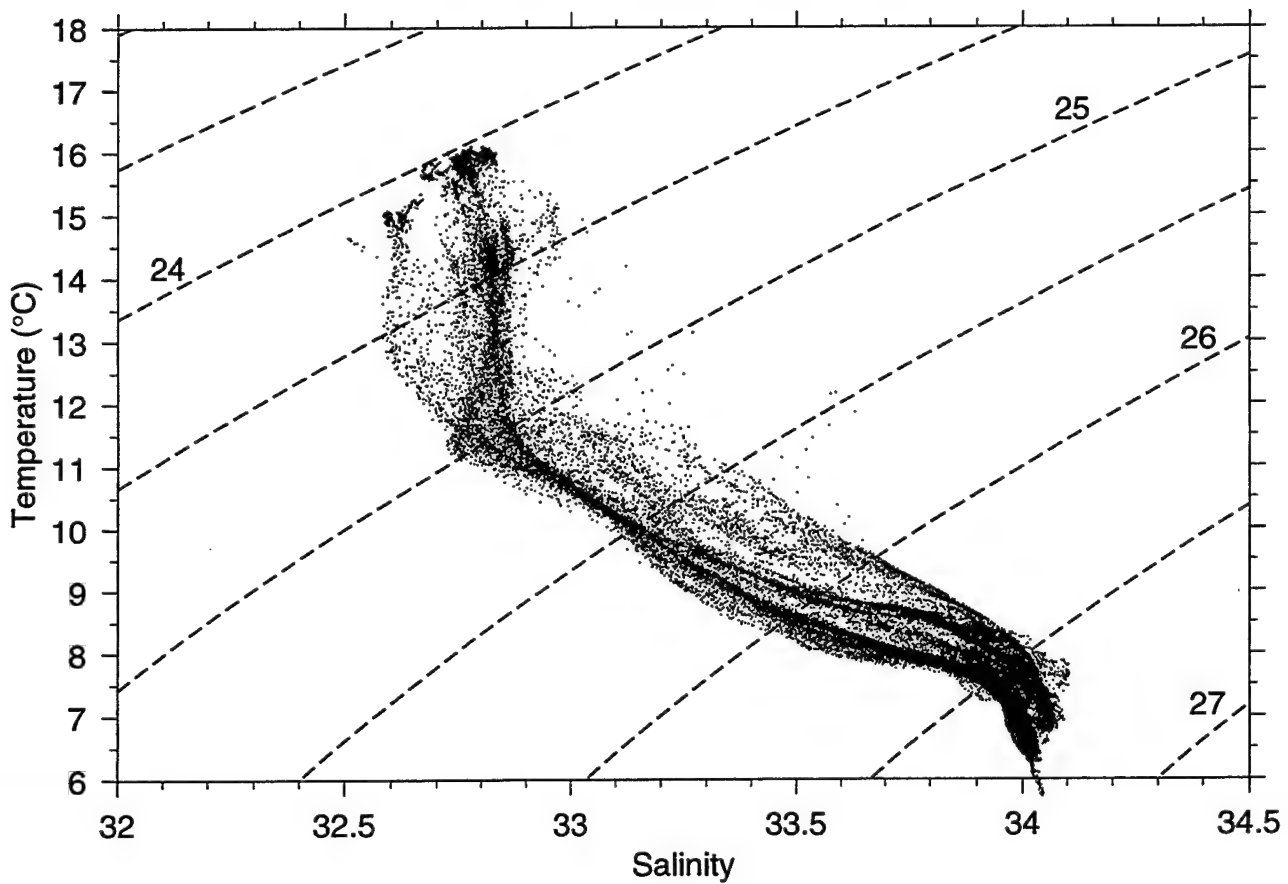


SUMMARY
TEMPERATURE-SALINITY
DIAGRAMS

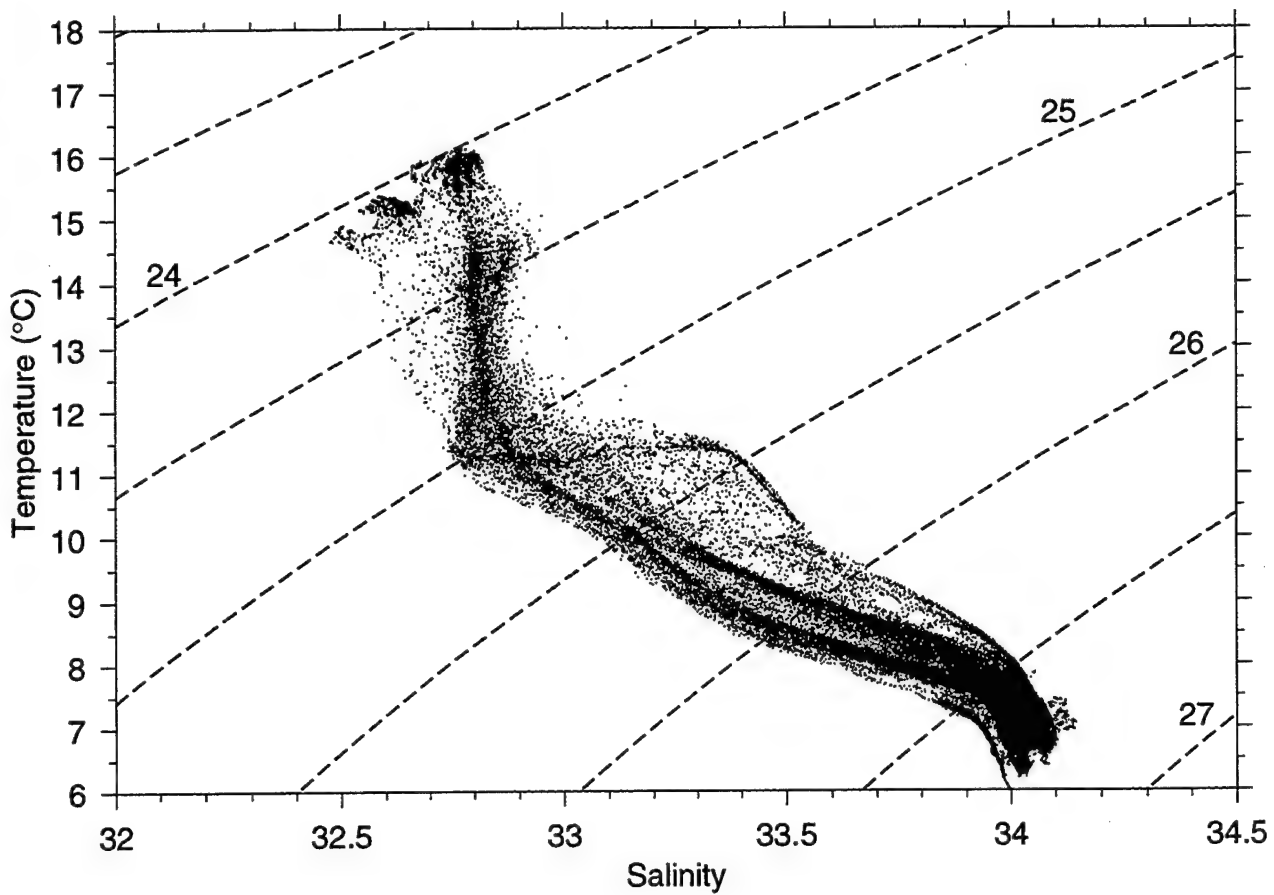
W9306, Large-Scale Survey, Line 1



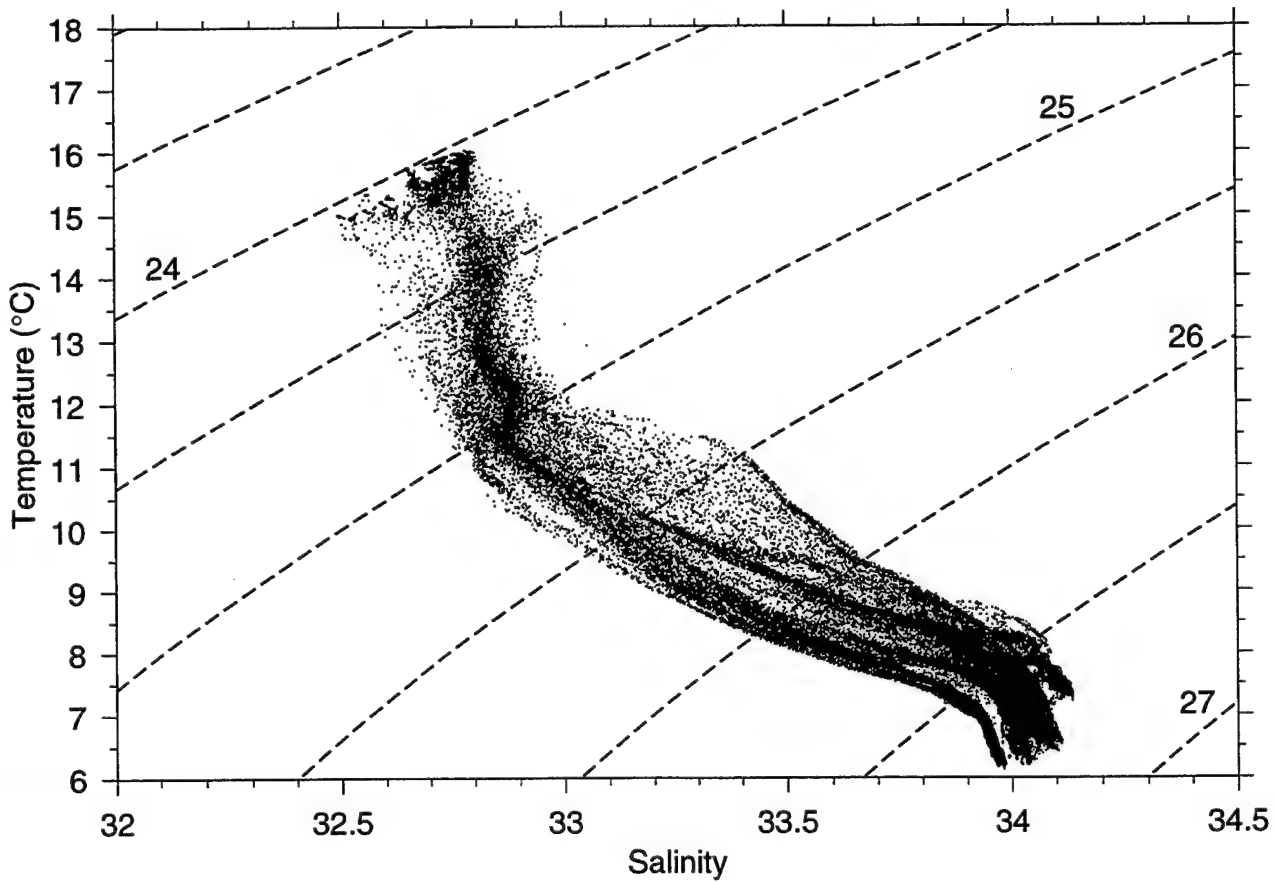
W9306, Large-Scale Survey, Line 2



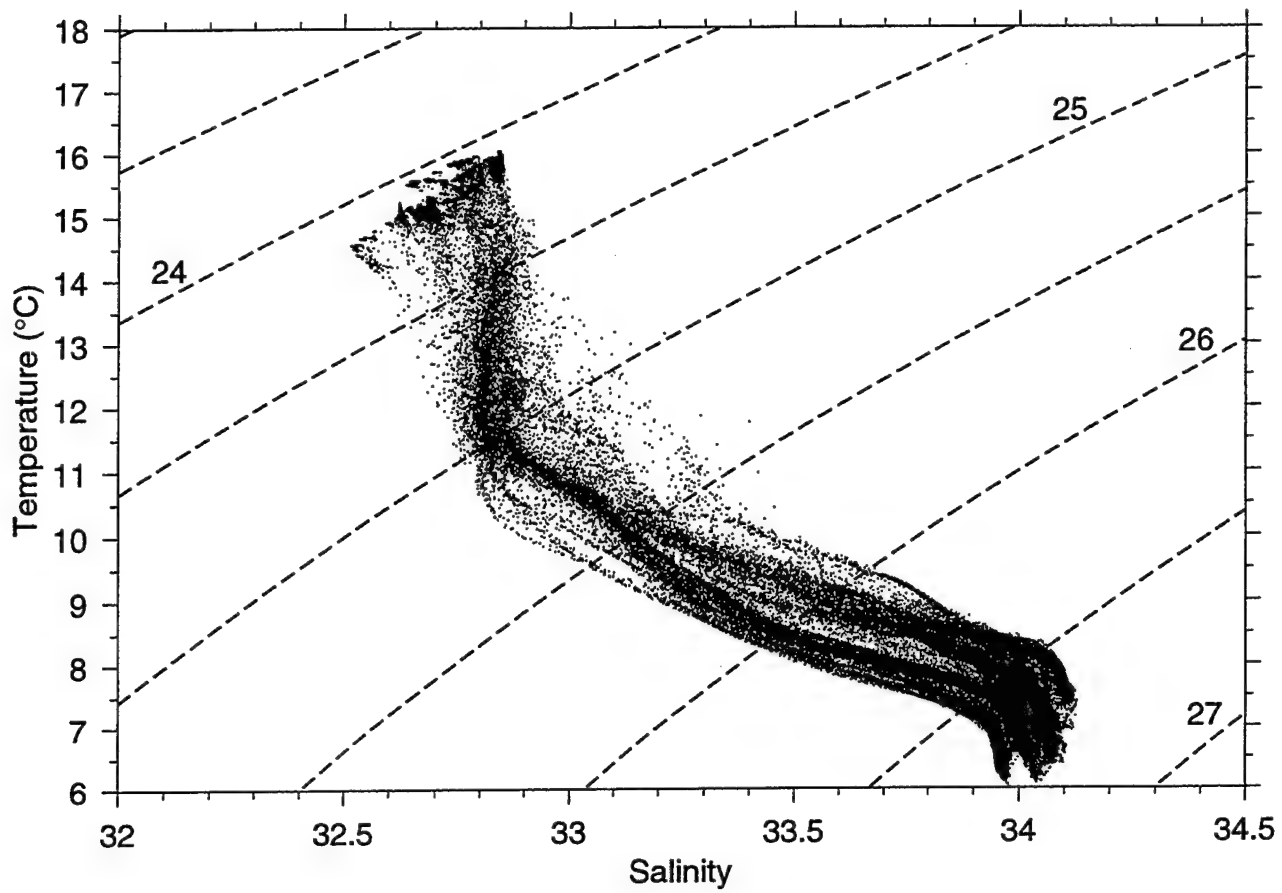
W9306, Large-Scale Survey, Line 3



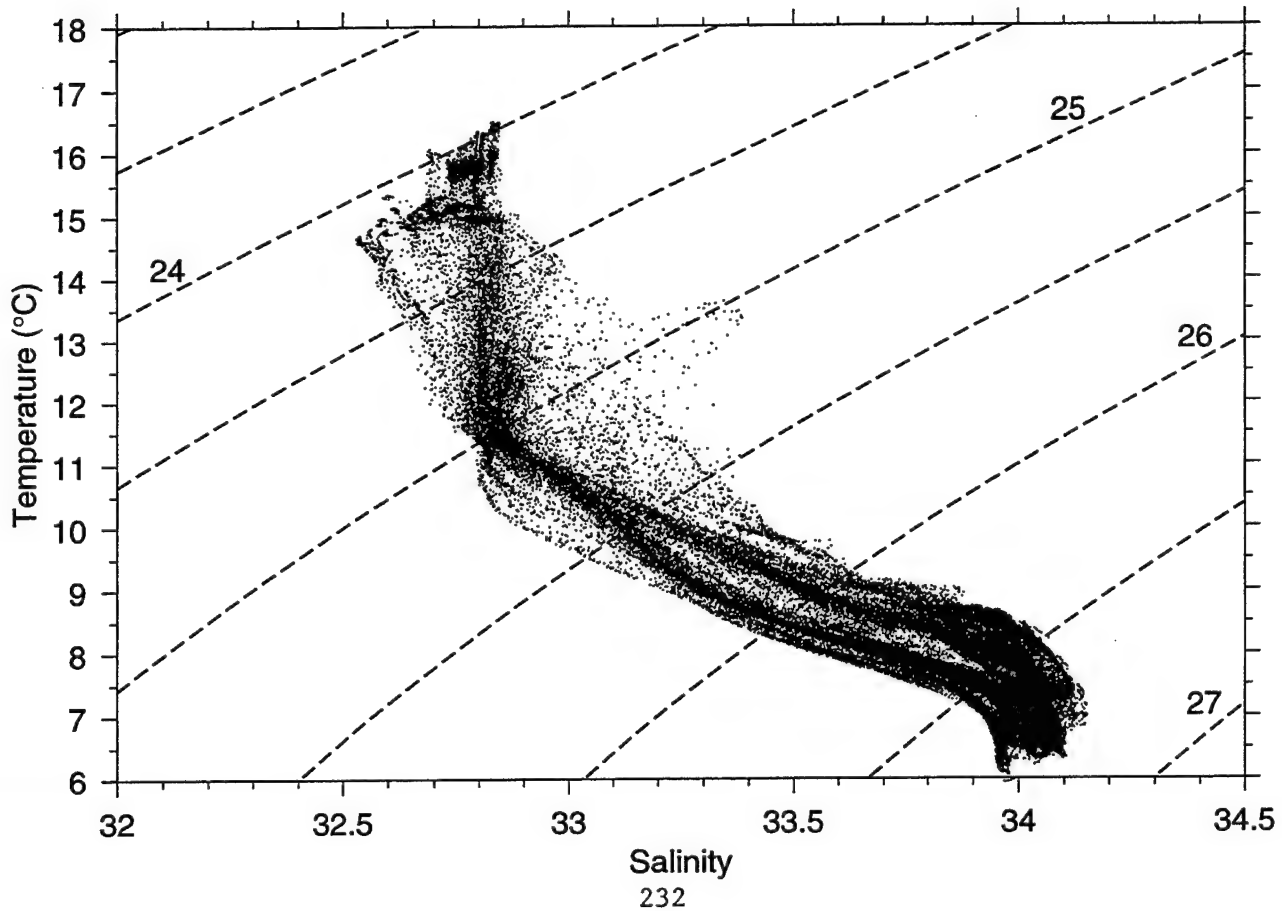
W9306, Large-Scale Survey, Line 4



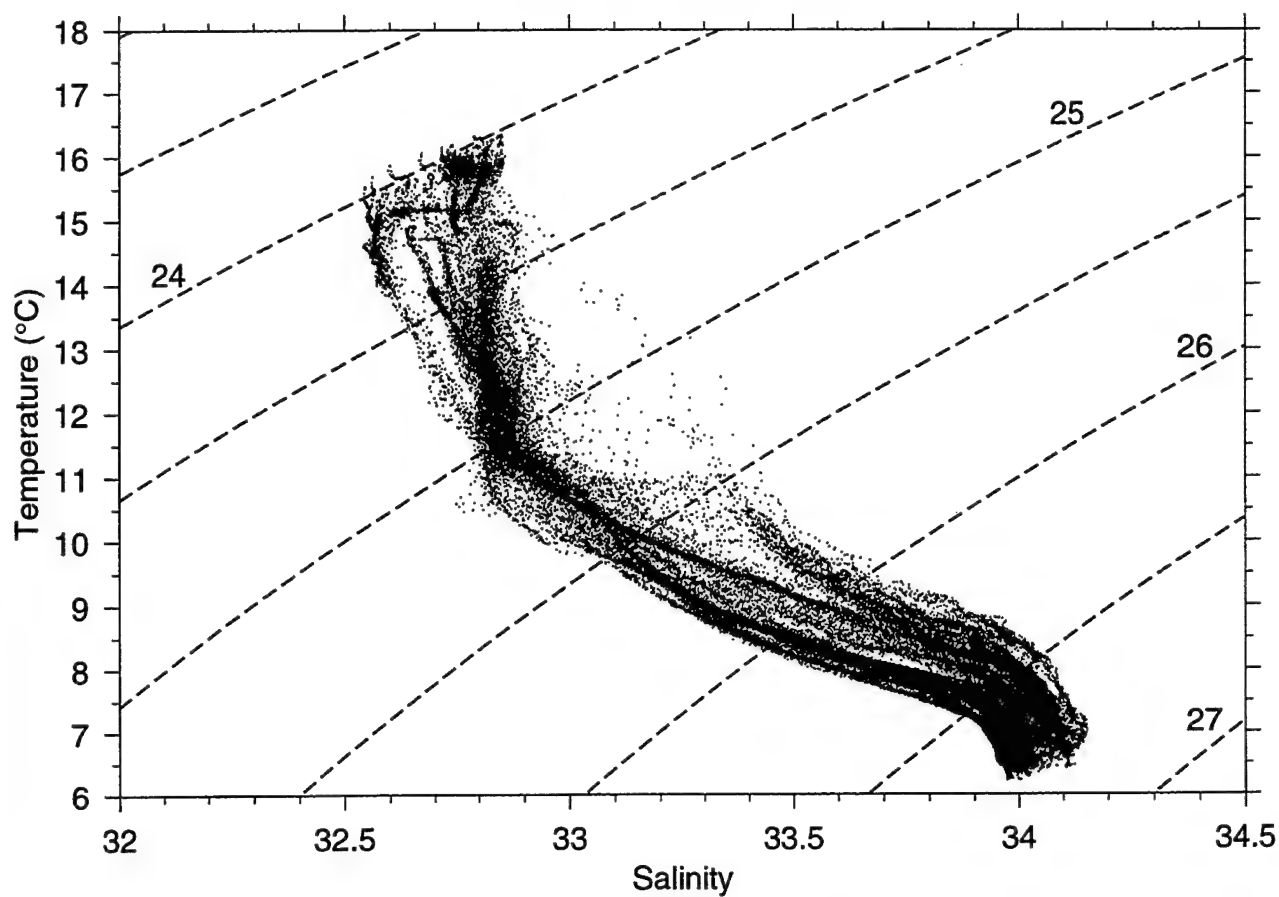
W9306, Large-Scale Survey, Line 5



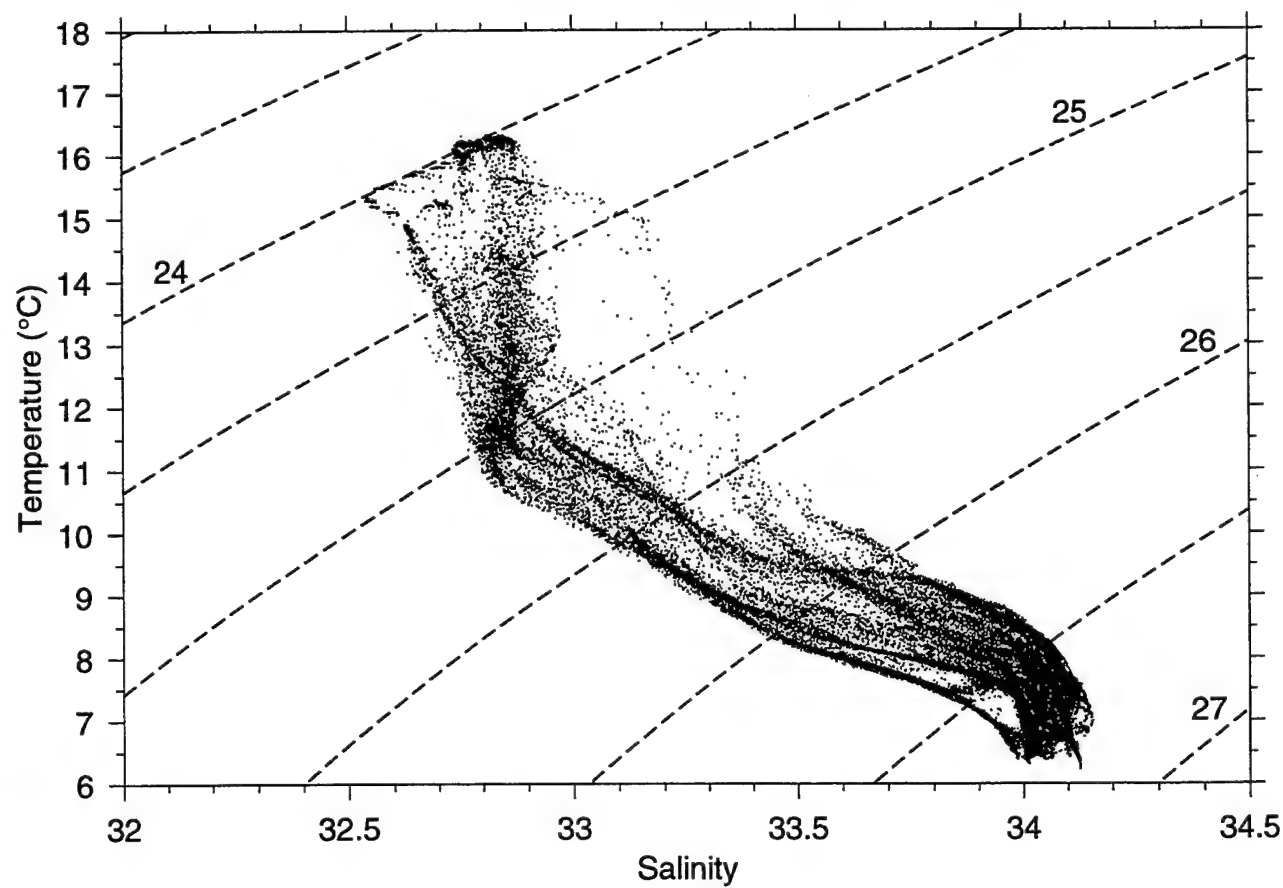
W9306, Large-Scale Survey, Line 6



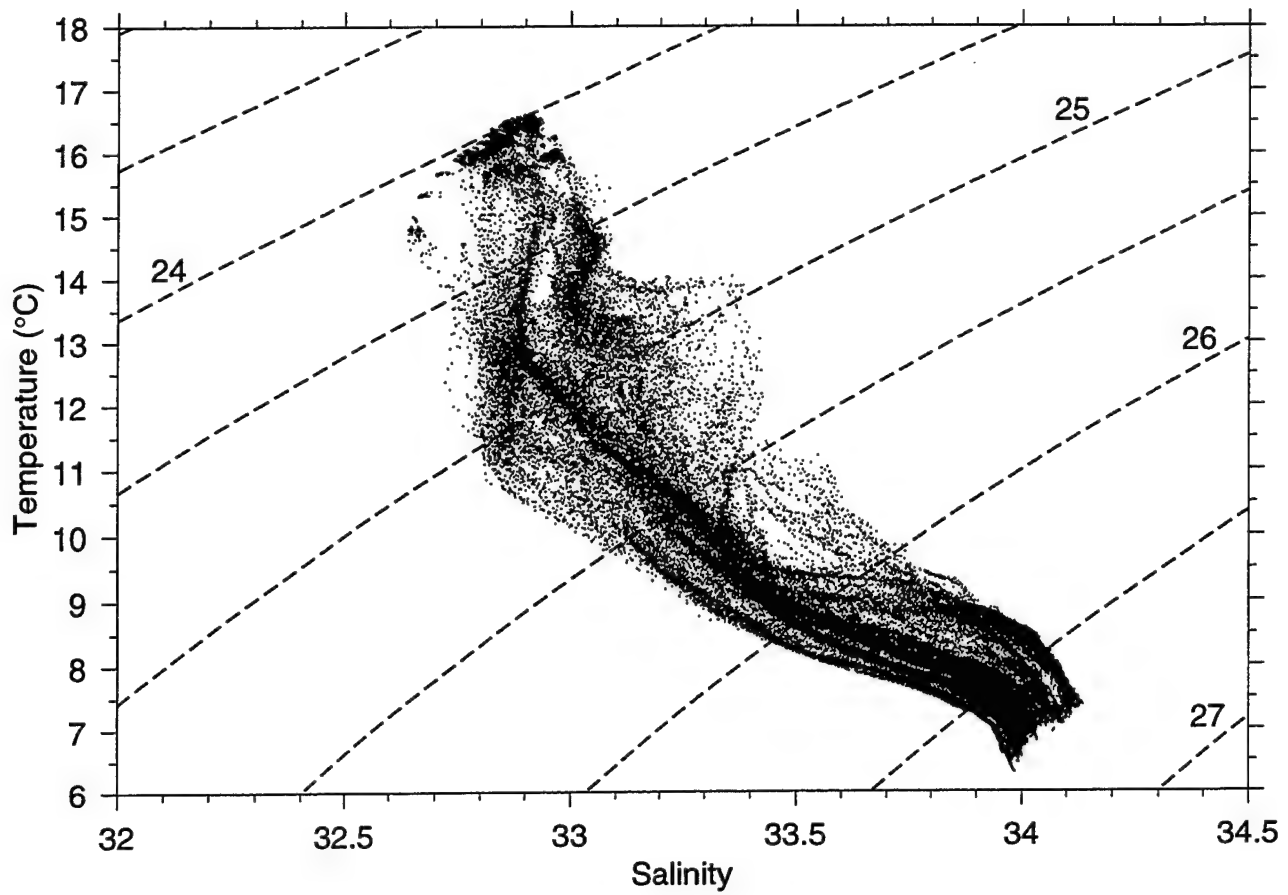
W9306, Large-Scale, Line 7



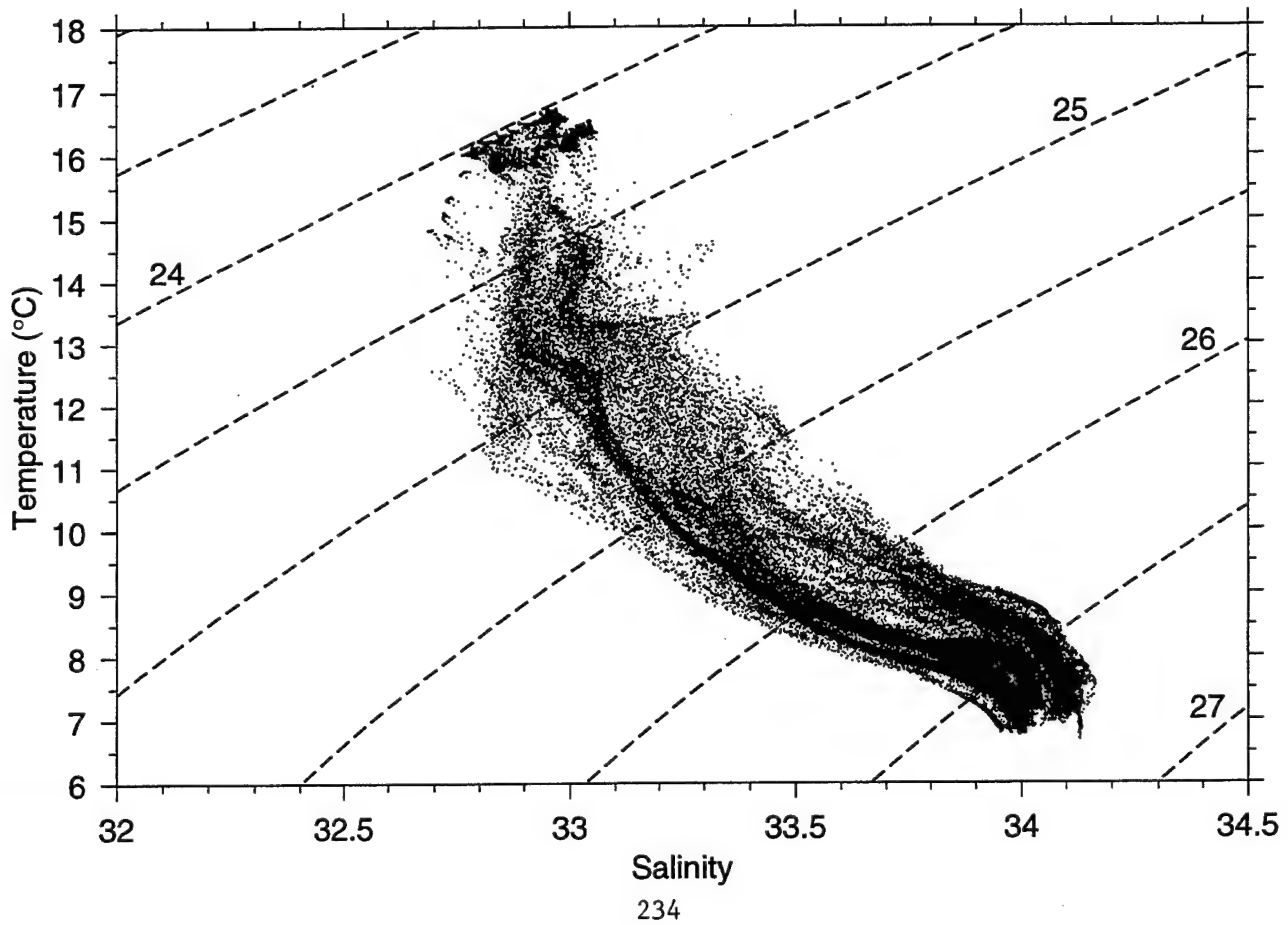
W9306, Large-Scale, Line 8



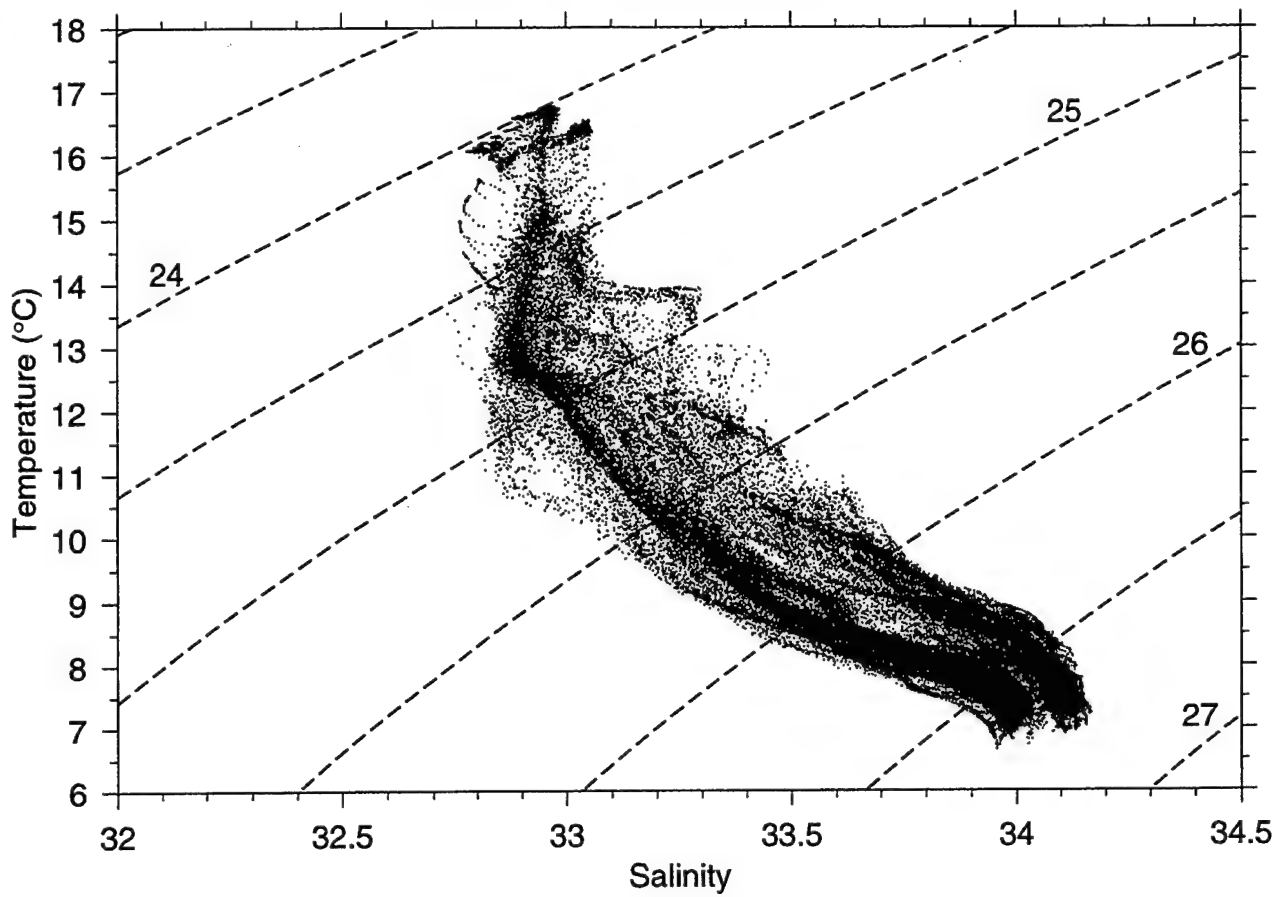
W9306, Large-Scale Survey, Line 9



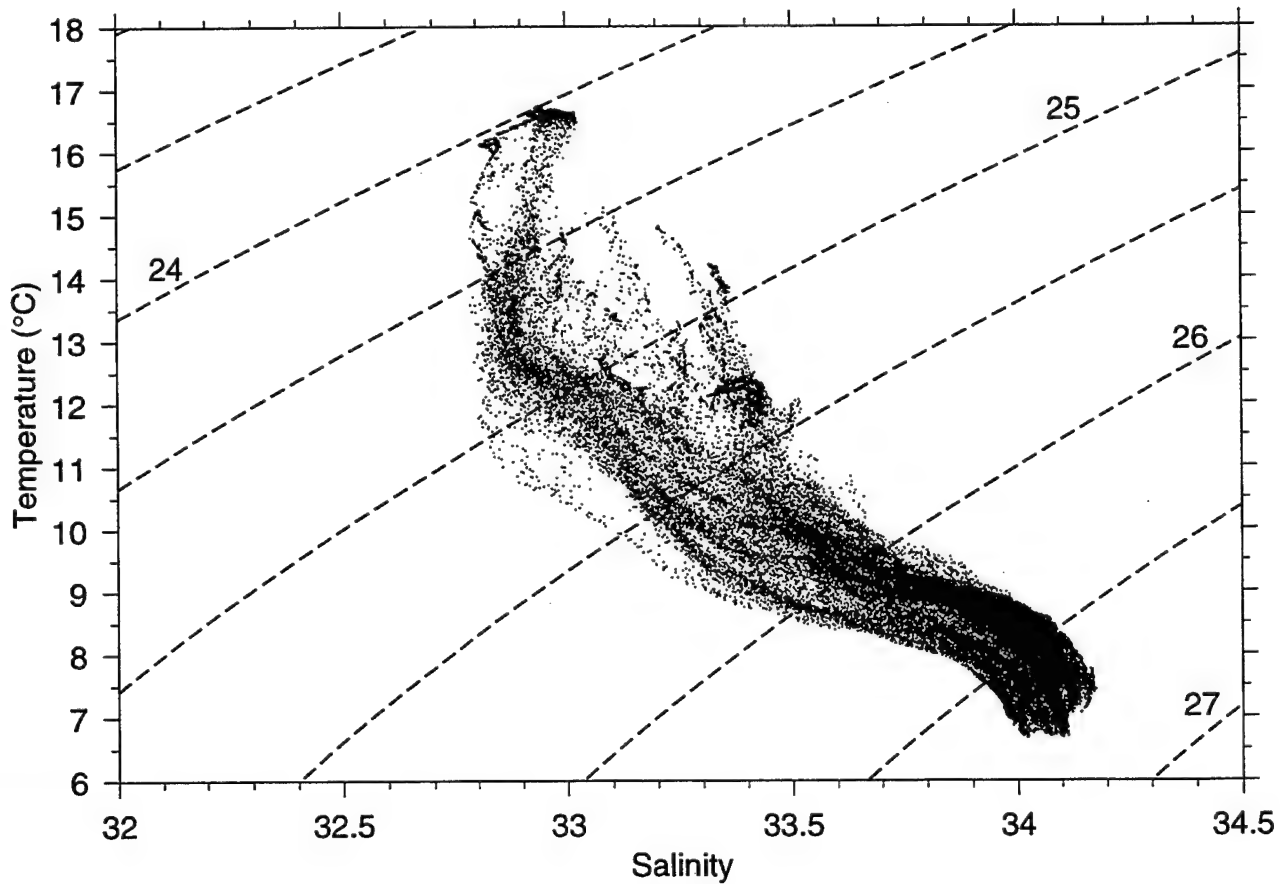
W9306, Large-Scale Survey, Line 10



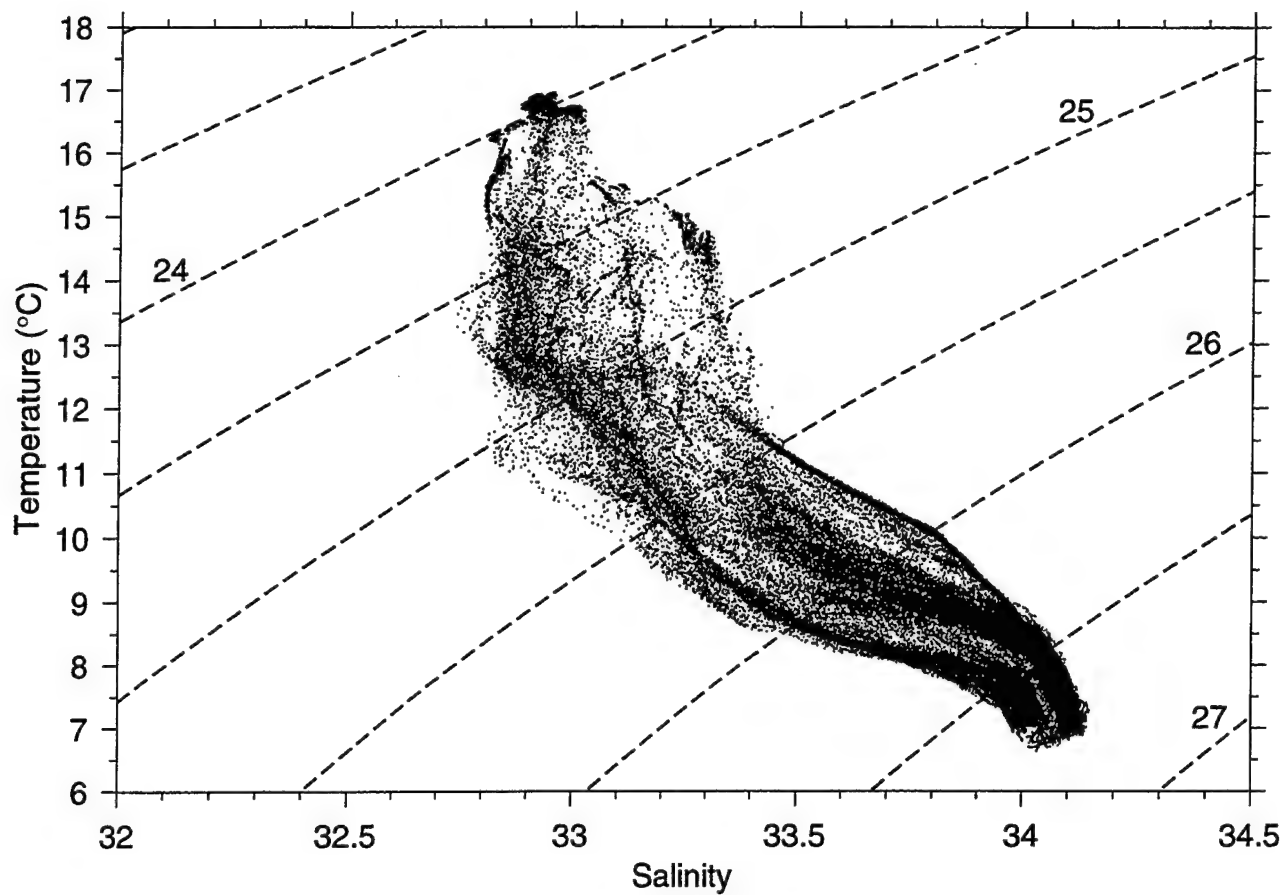
W9306, Large-Scale Survey, Line 11



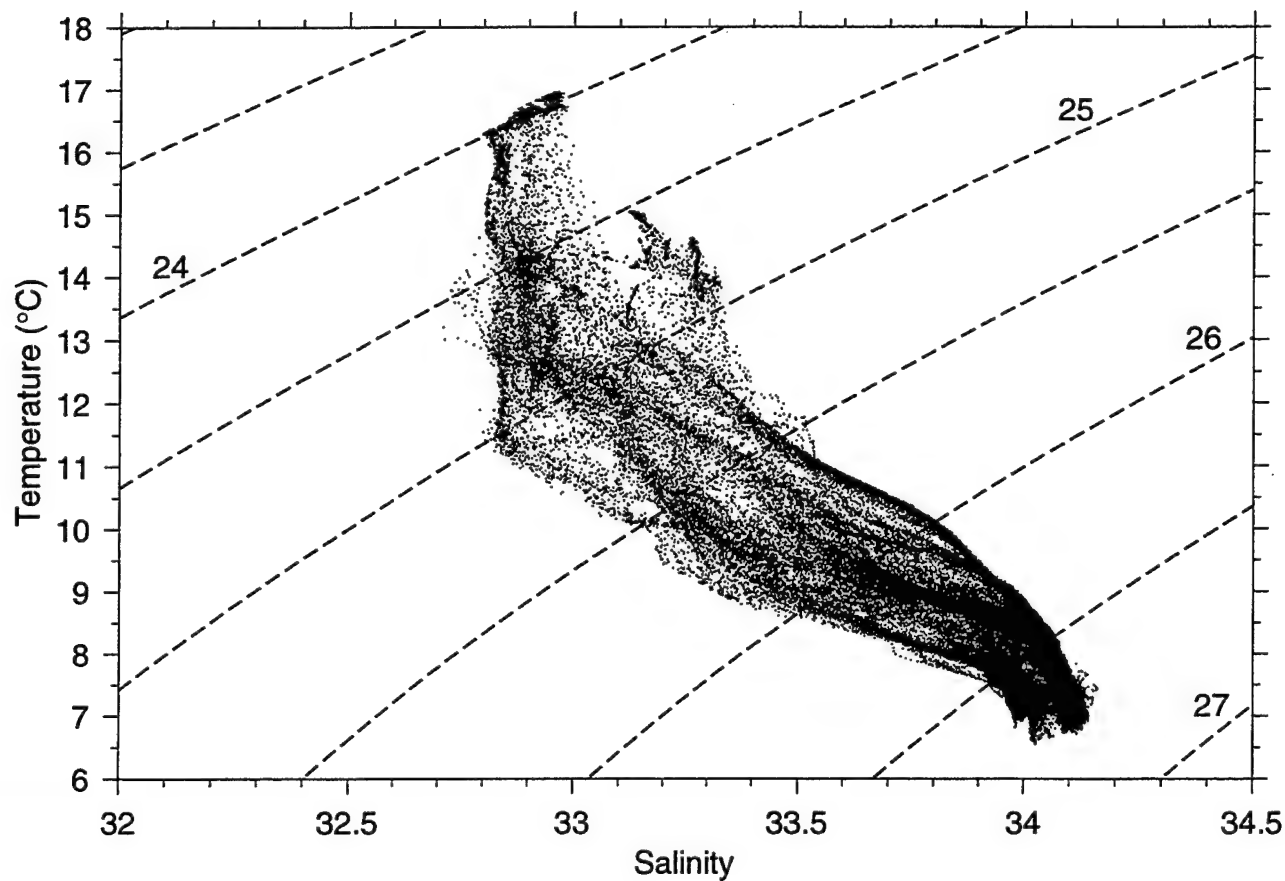
W9306, Large-Scale Survey, Line 12



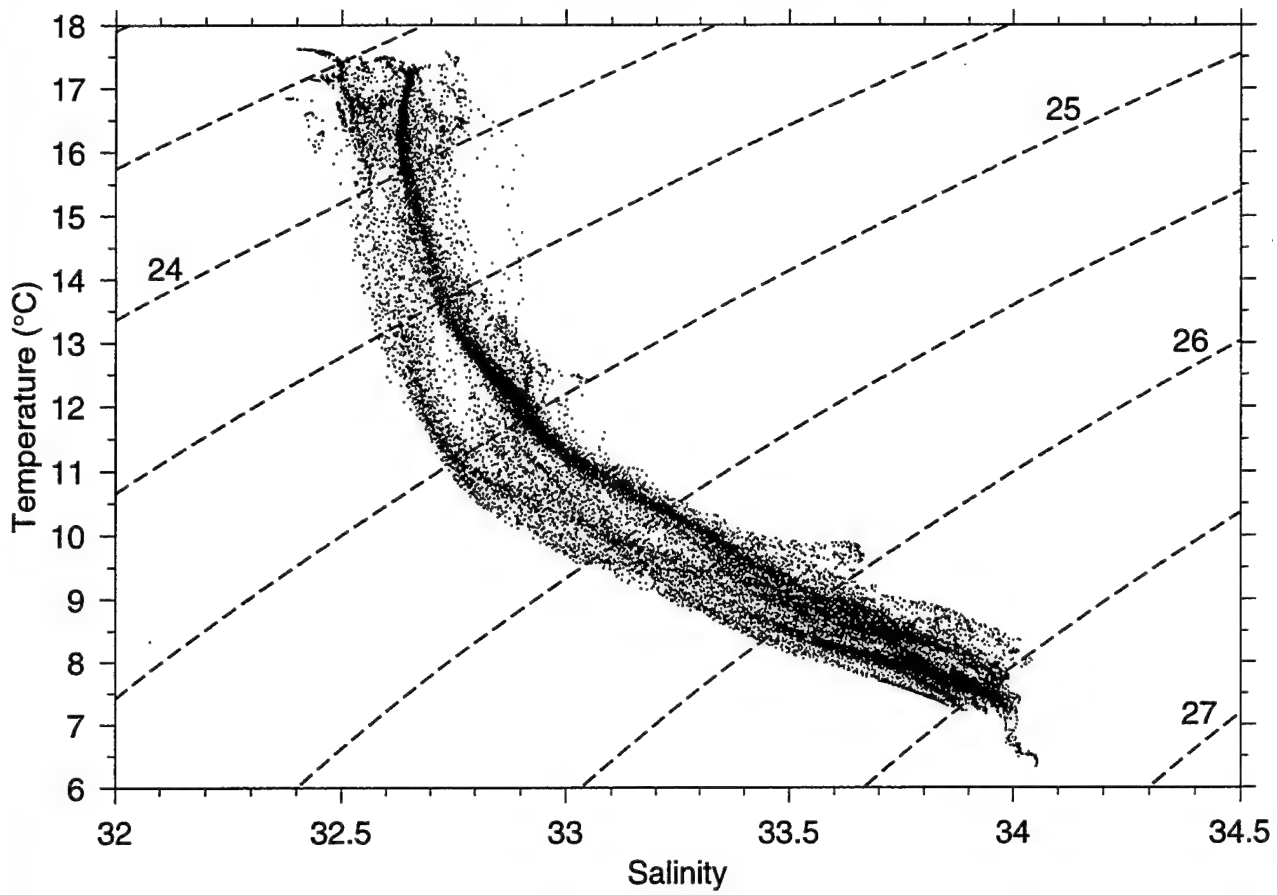
W9306, Large-Scale Survey, Line 13



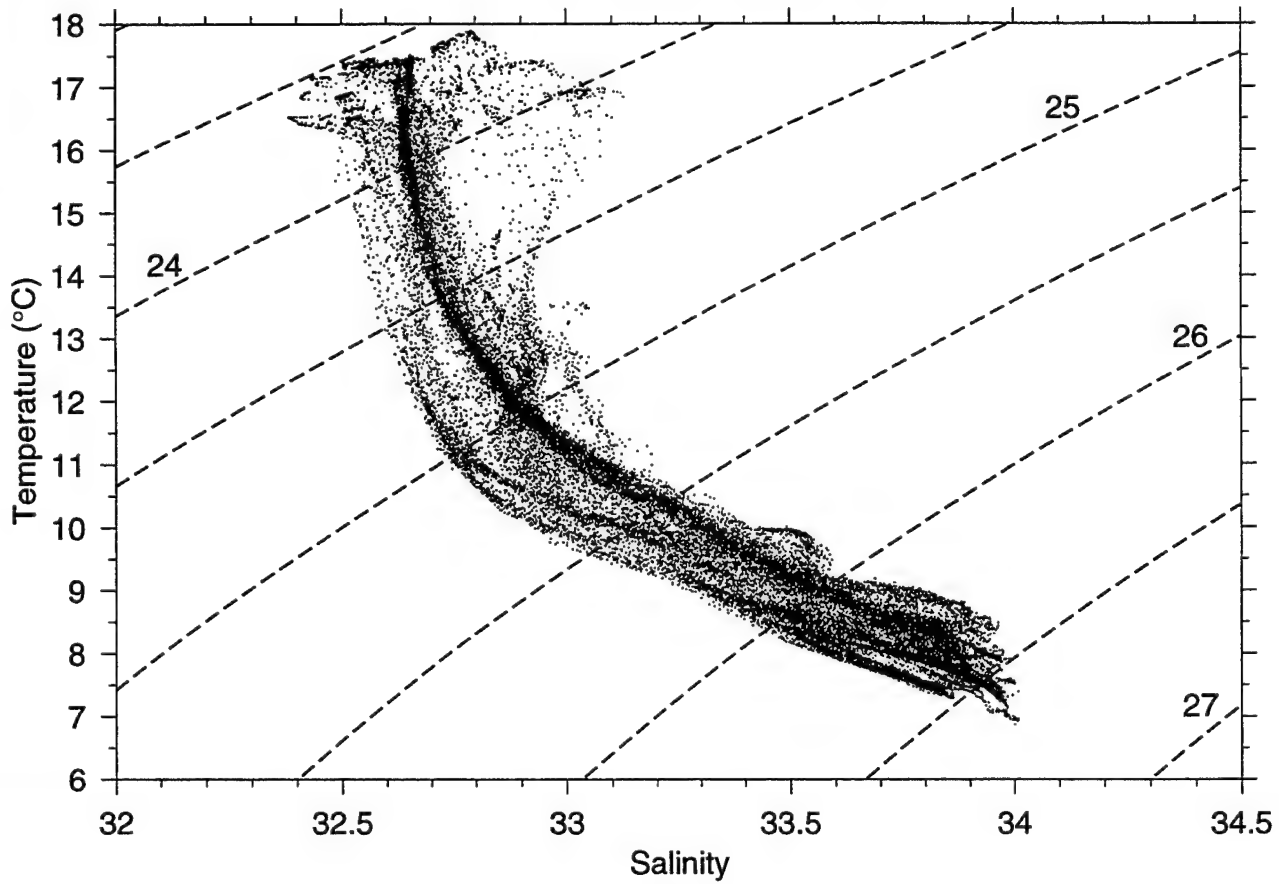
W9306, Large-Scale Survey, Line 14



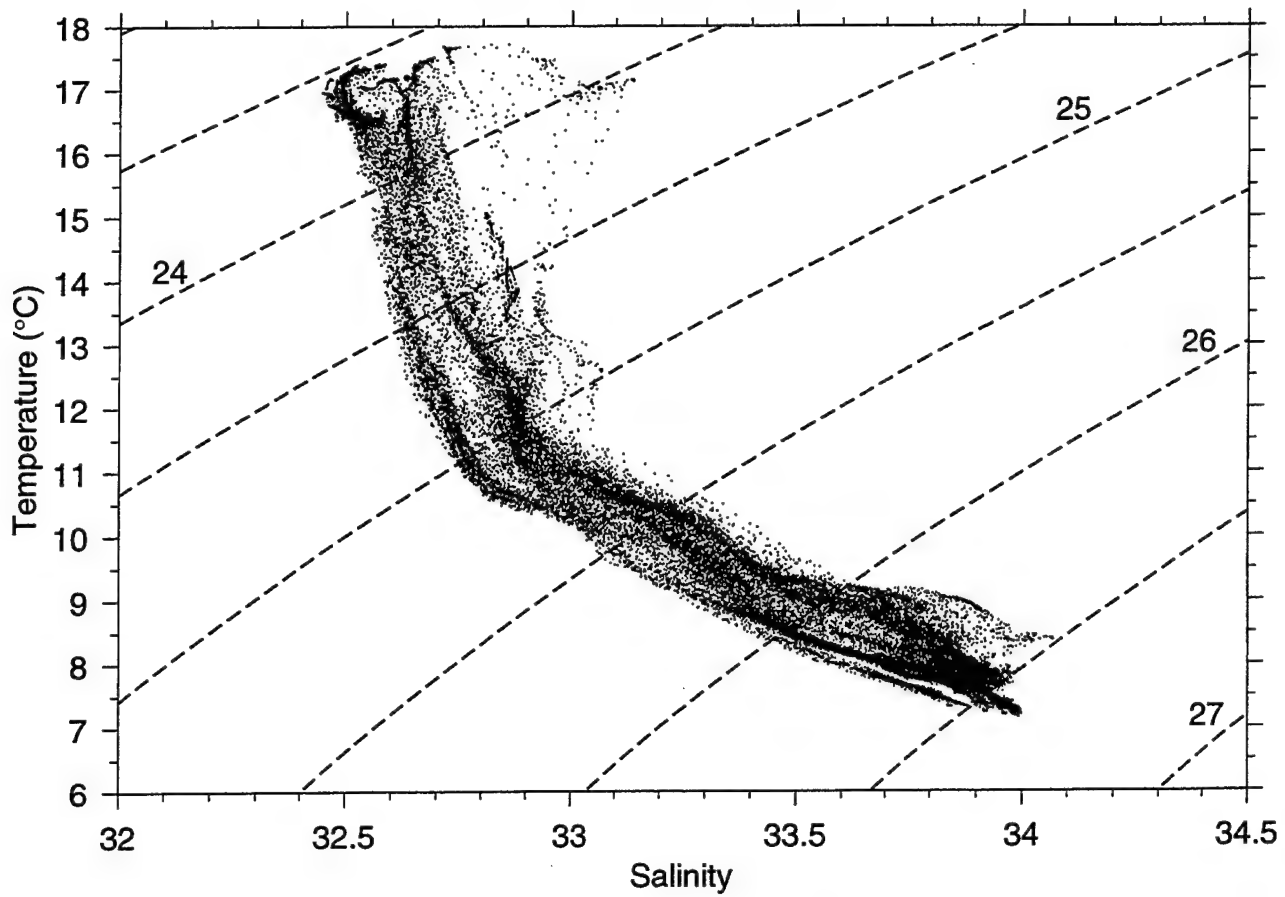
W9308, Large-Scale Survey, Line 3



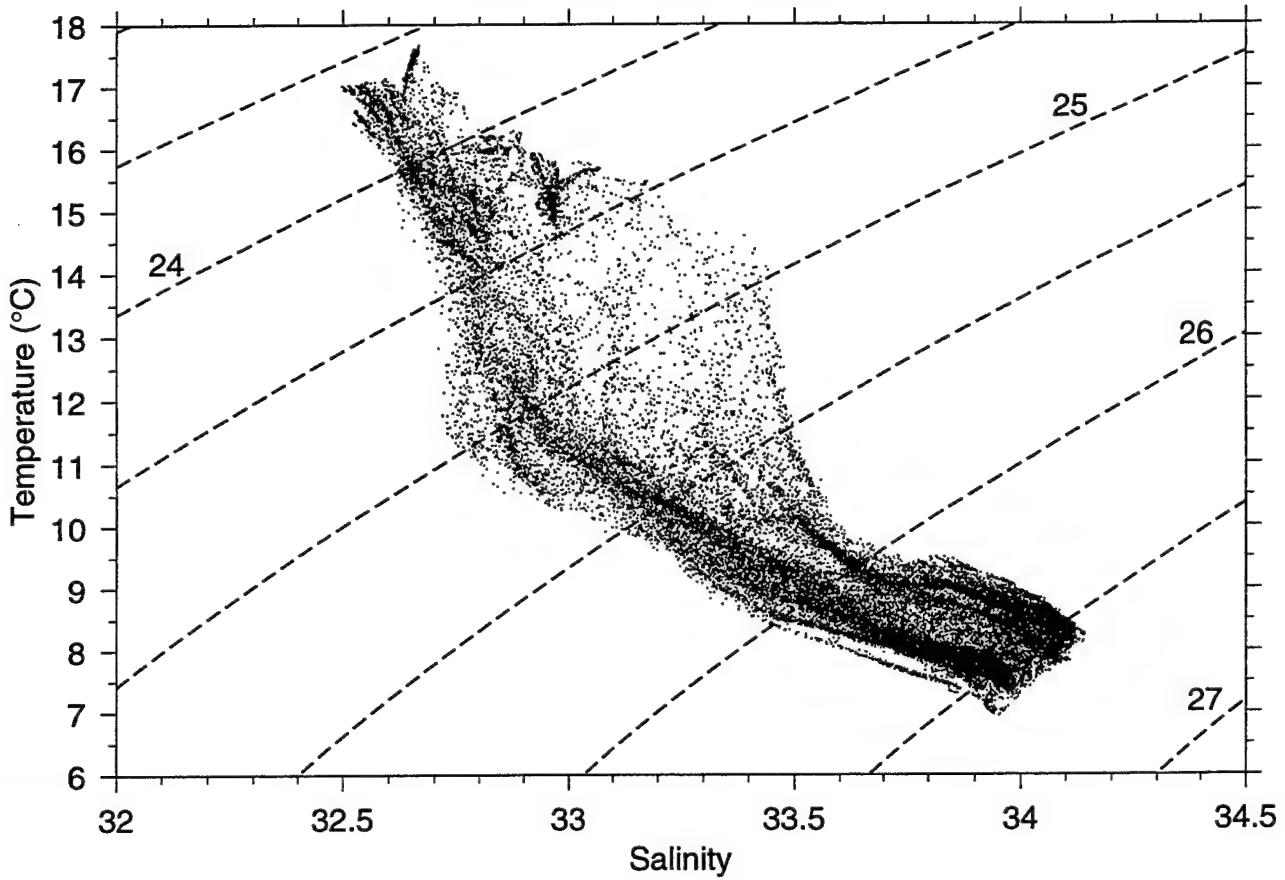
W9308, Large-Scale Survey, Line 4



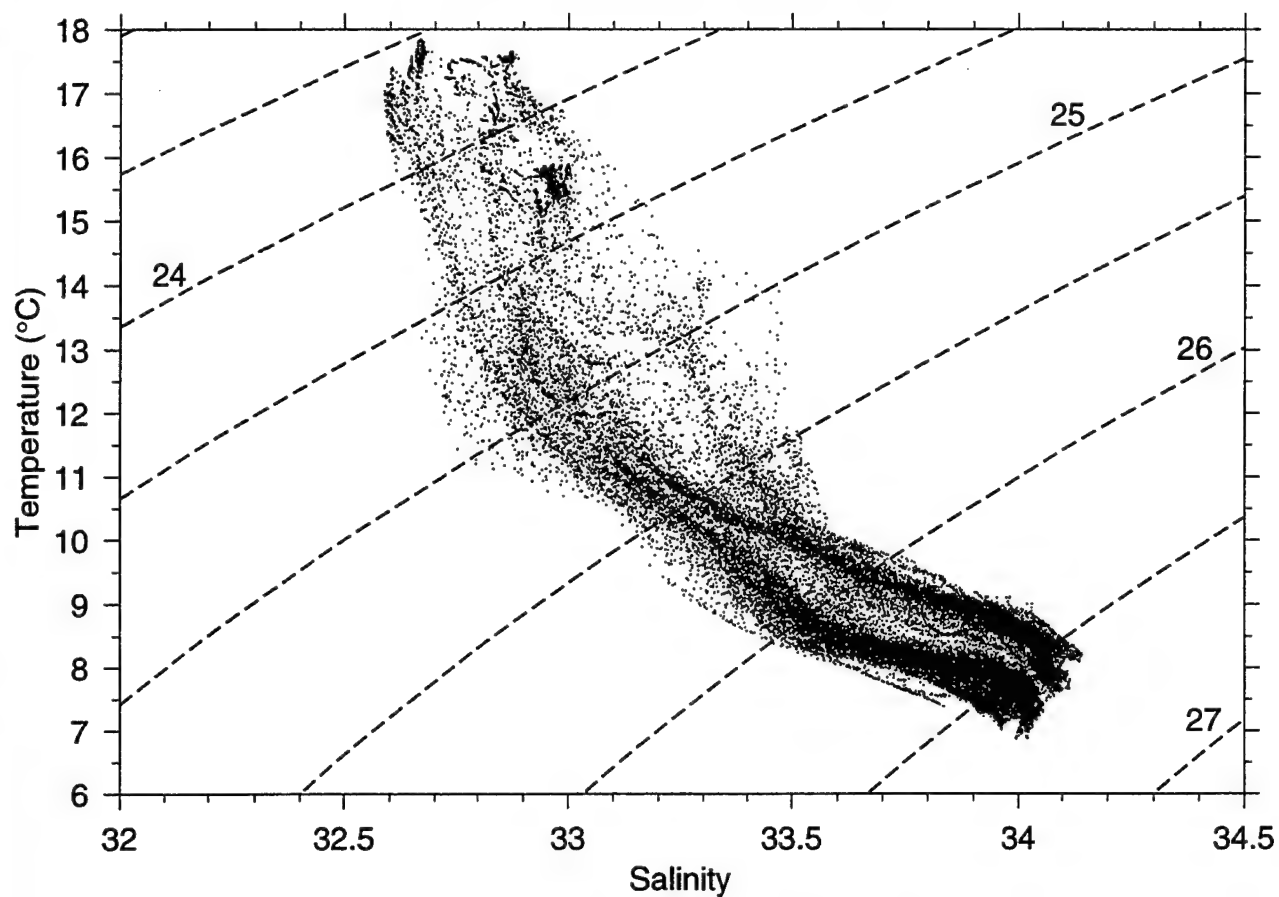
W9308, Large-Scale Survey, Line 5



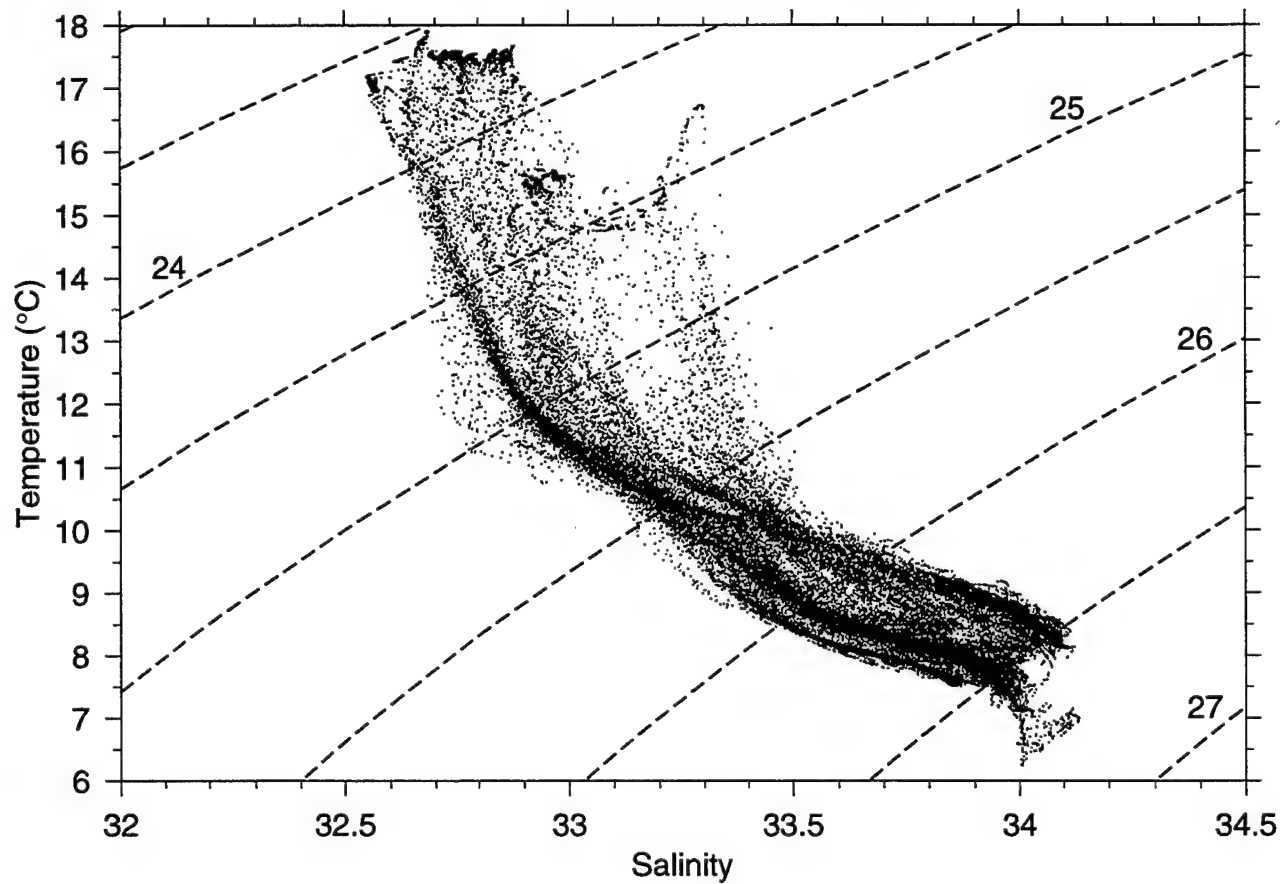
W9308, Large-Scale Survey, Line 6



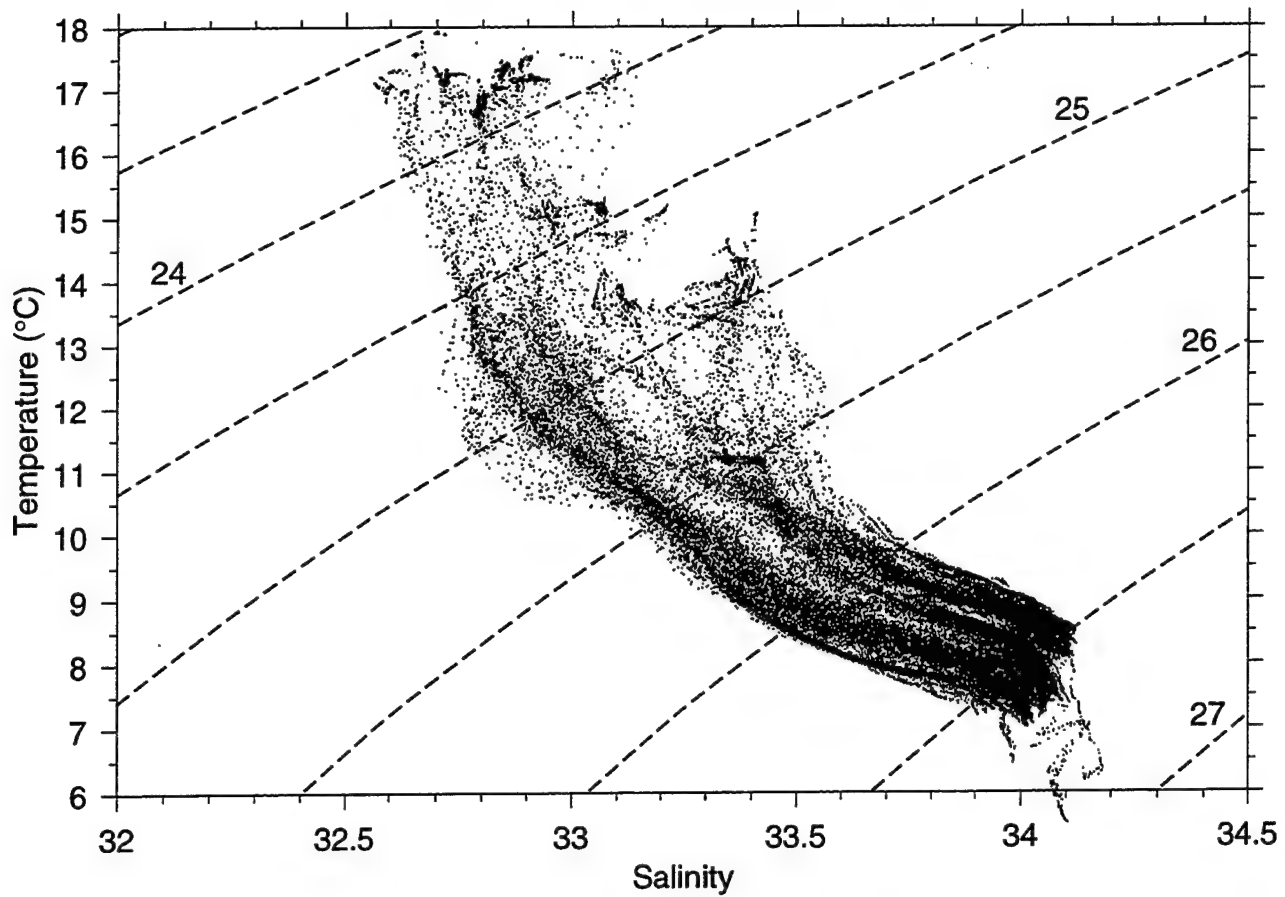
W9308, Large-Scale Survey, Line 7



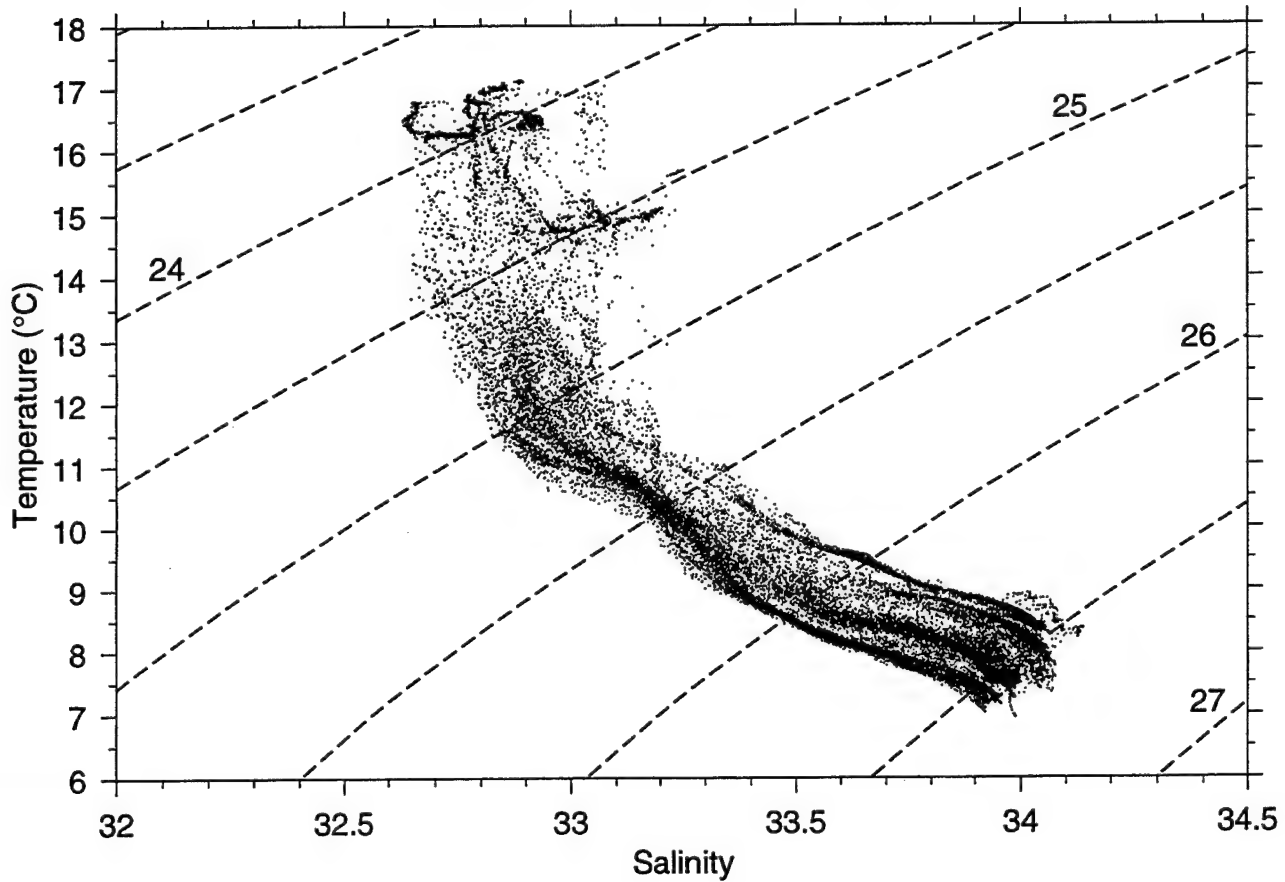
W9308, Large-Scale Survey, Line 8

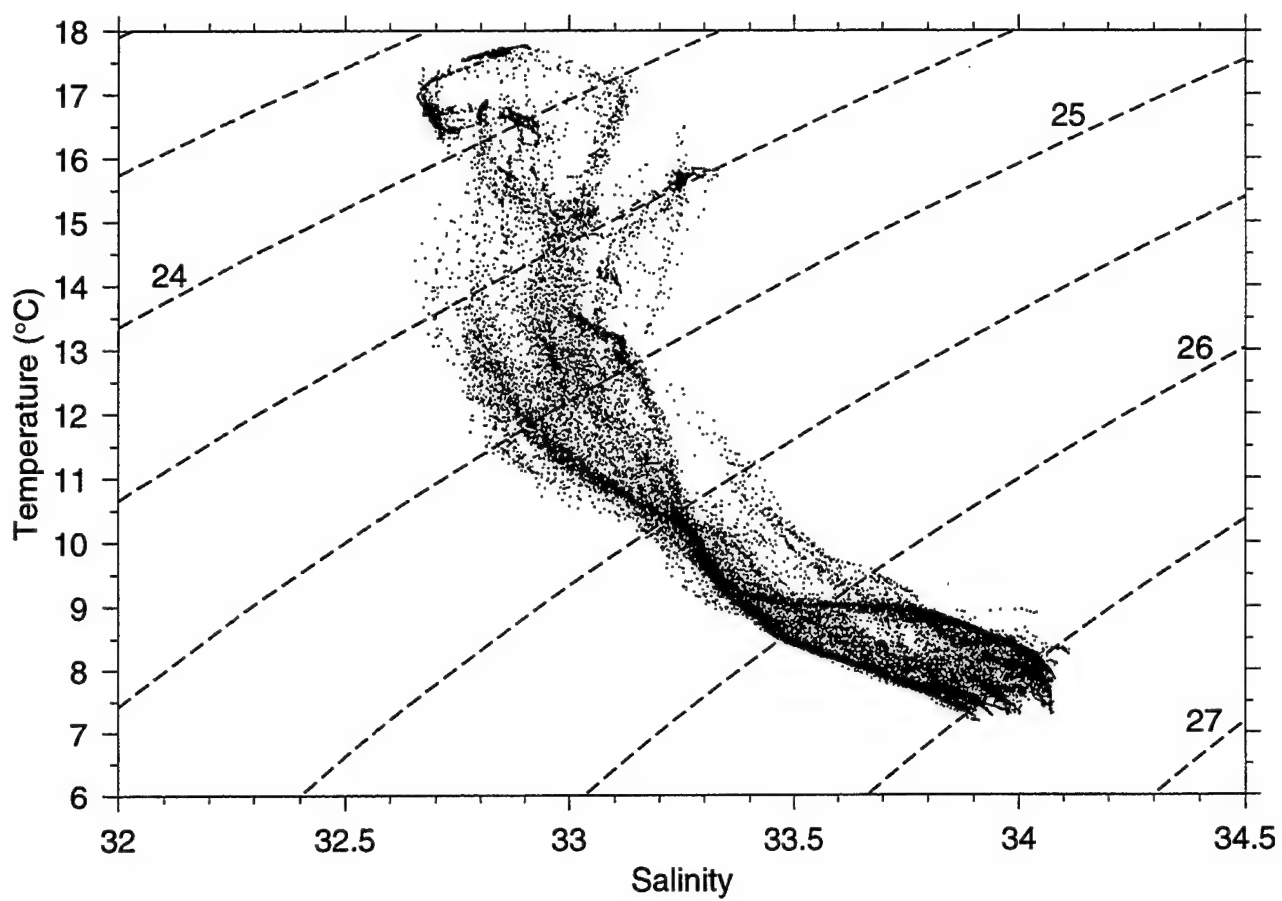


W9308, Large-Scale Survey, Line 9

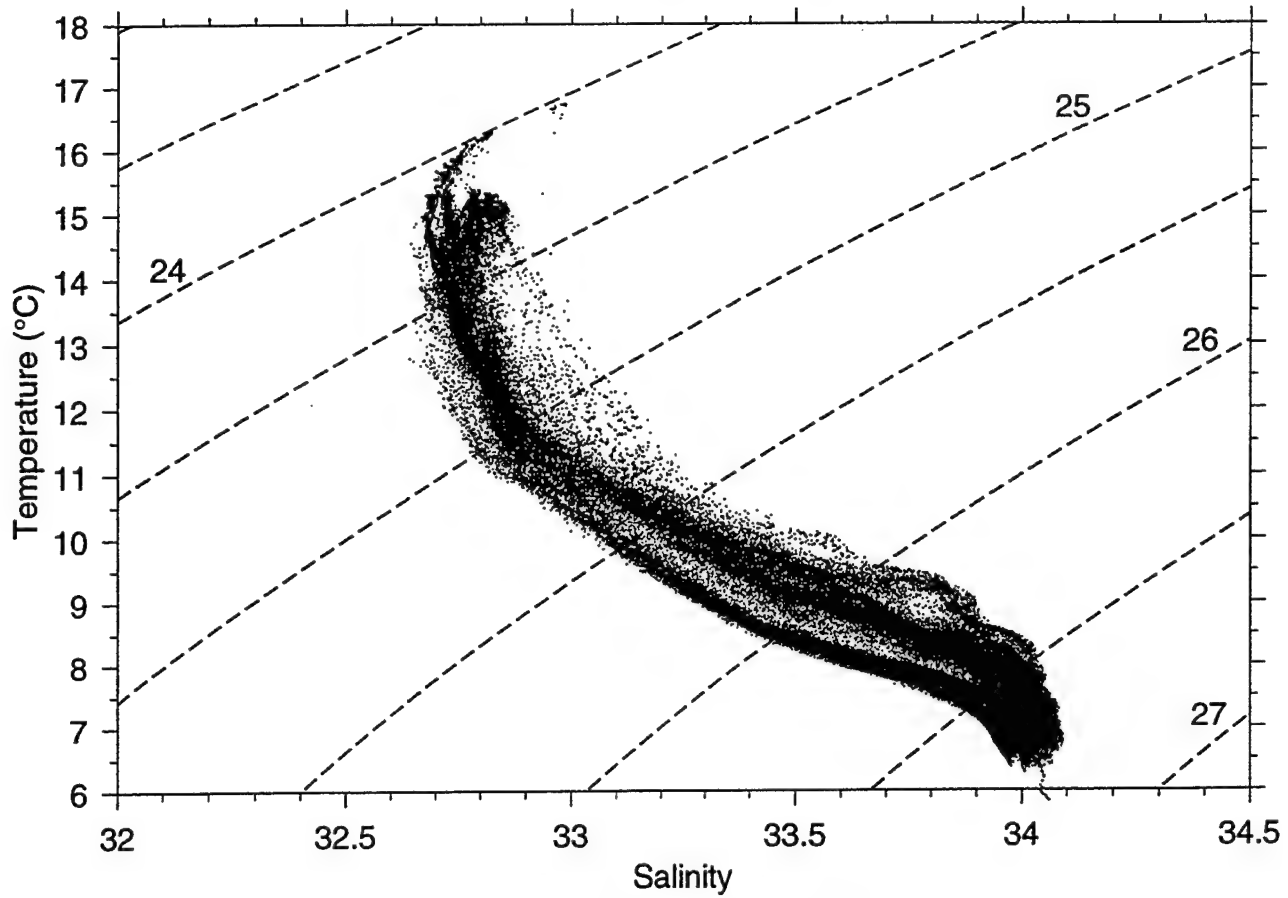


W9308, Large-Scale Survey, Line 10

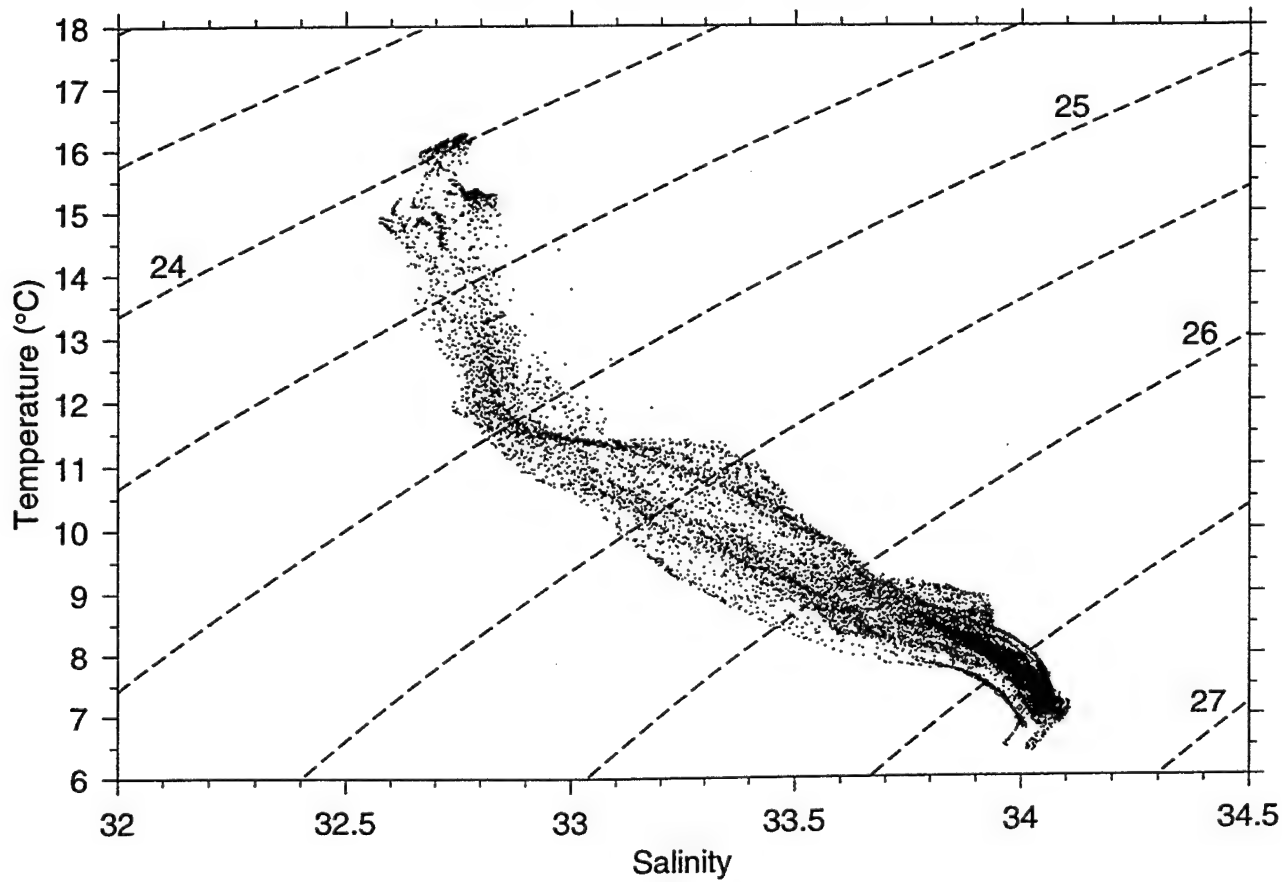




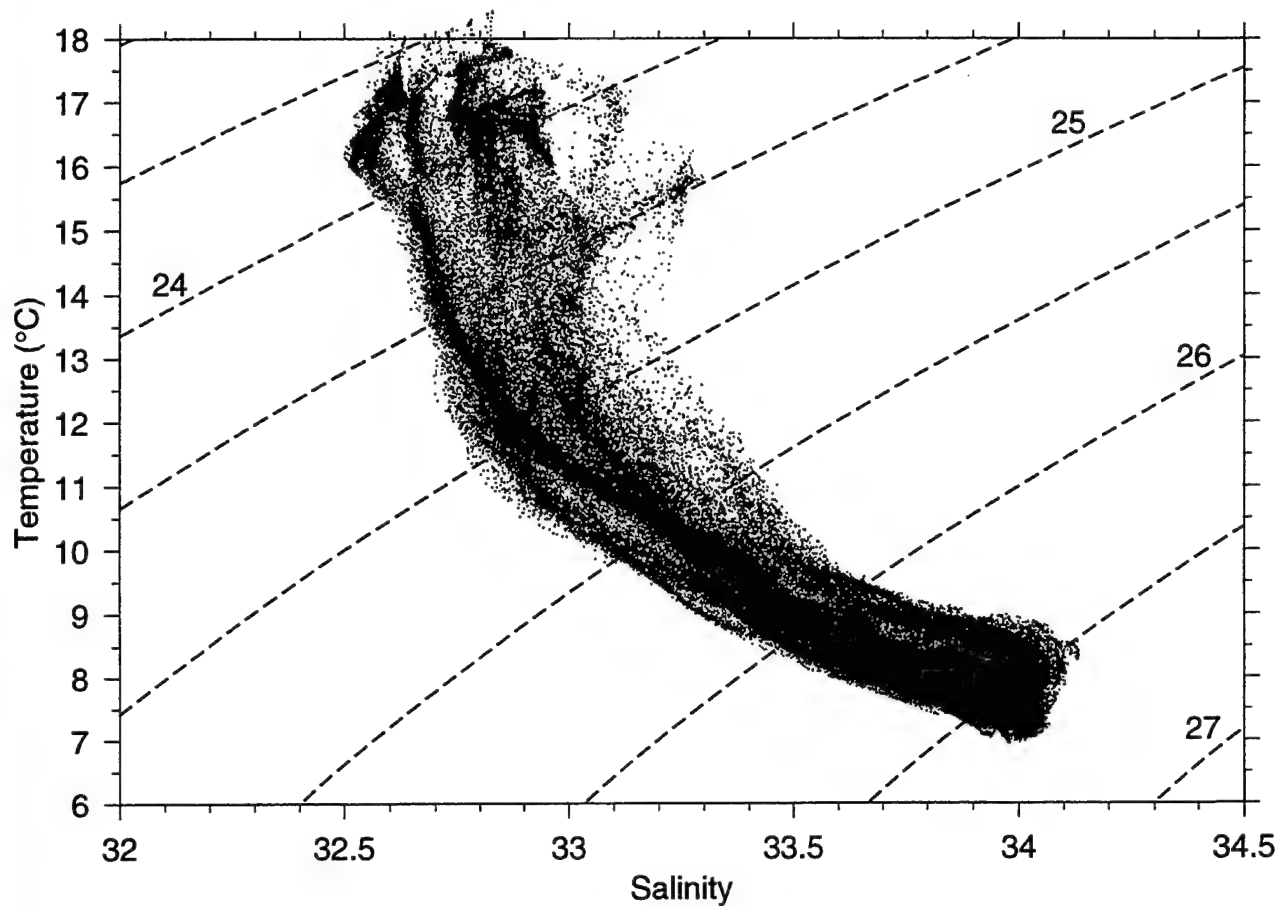
W9306, Small-Scale Survey 1



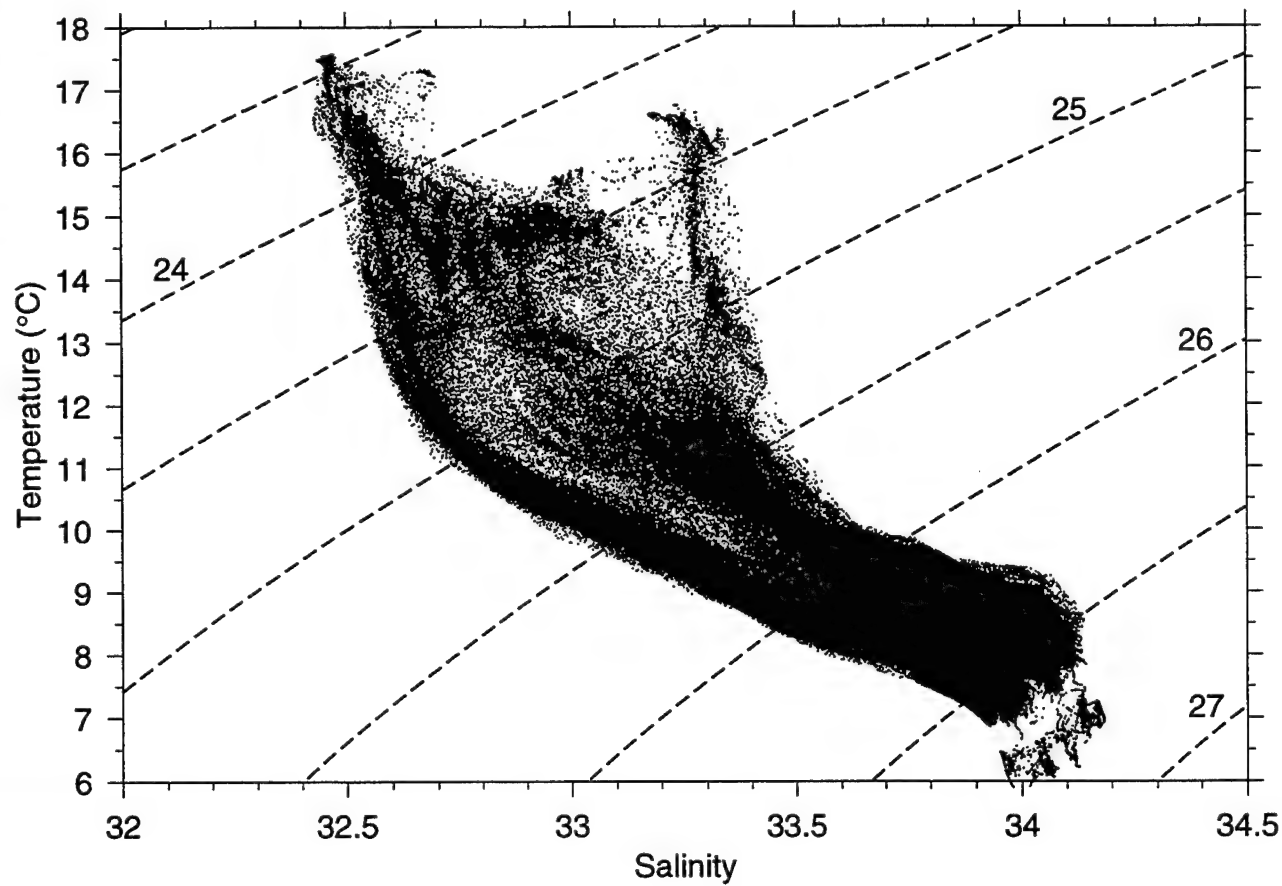
W9306, Small-Scale Survey 2



W9308, Small-Scale Survey 3

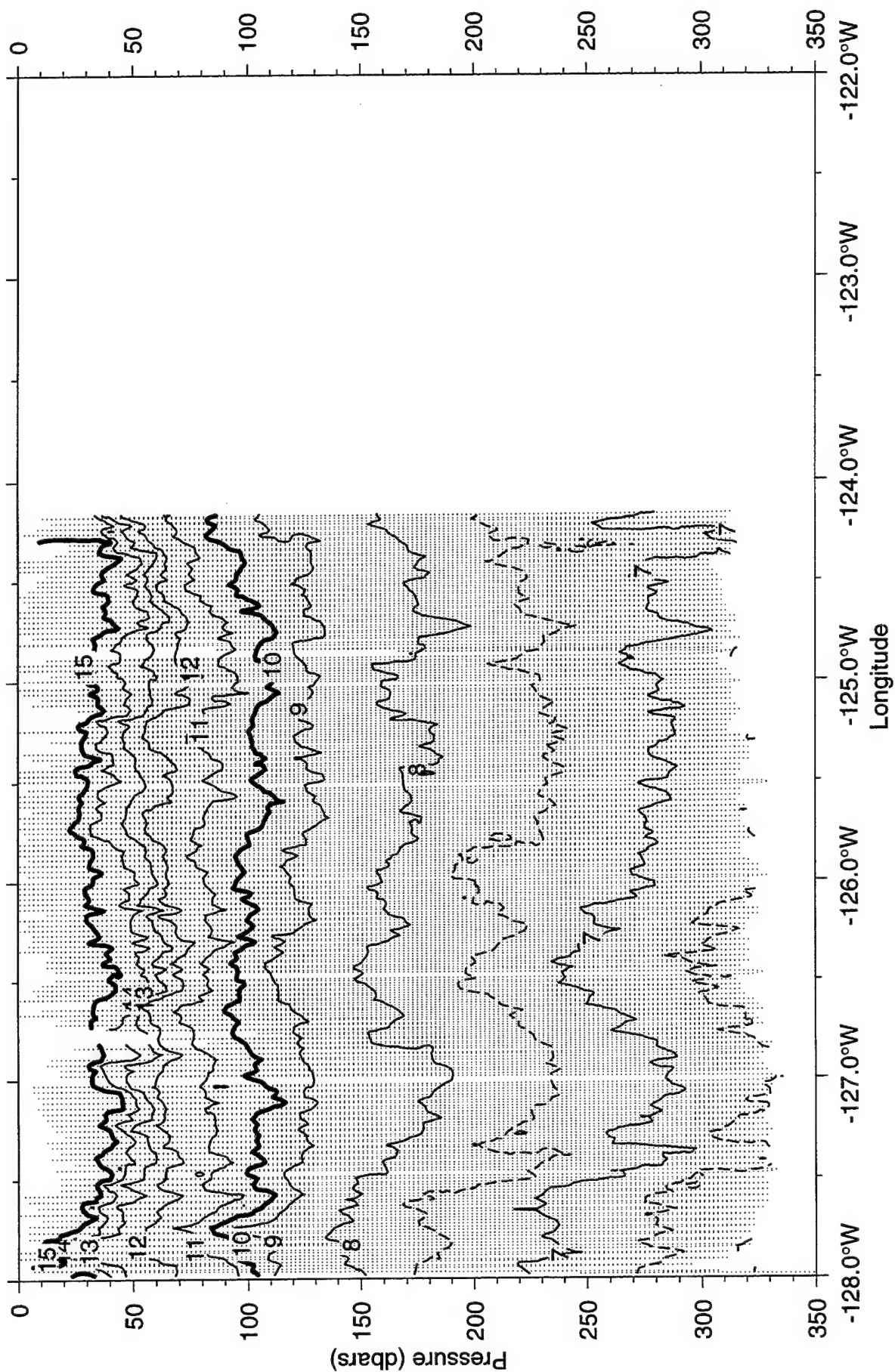


W9308, Small-Scale Survey 4

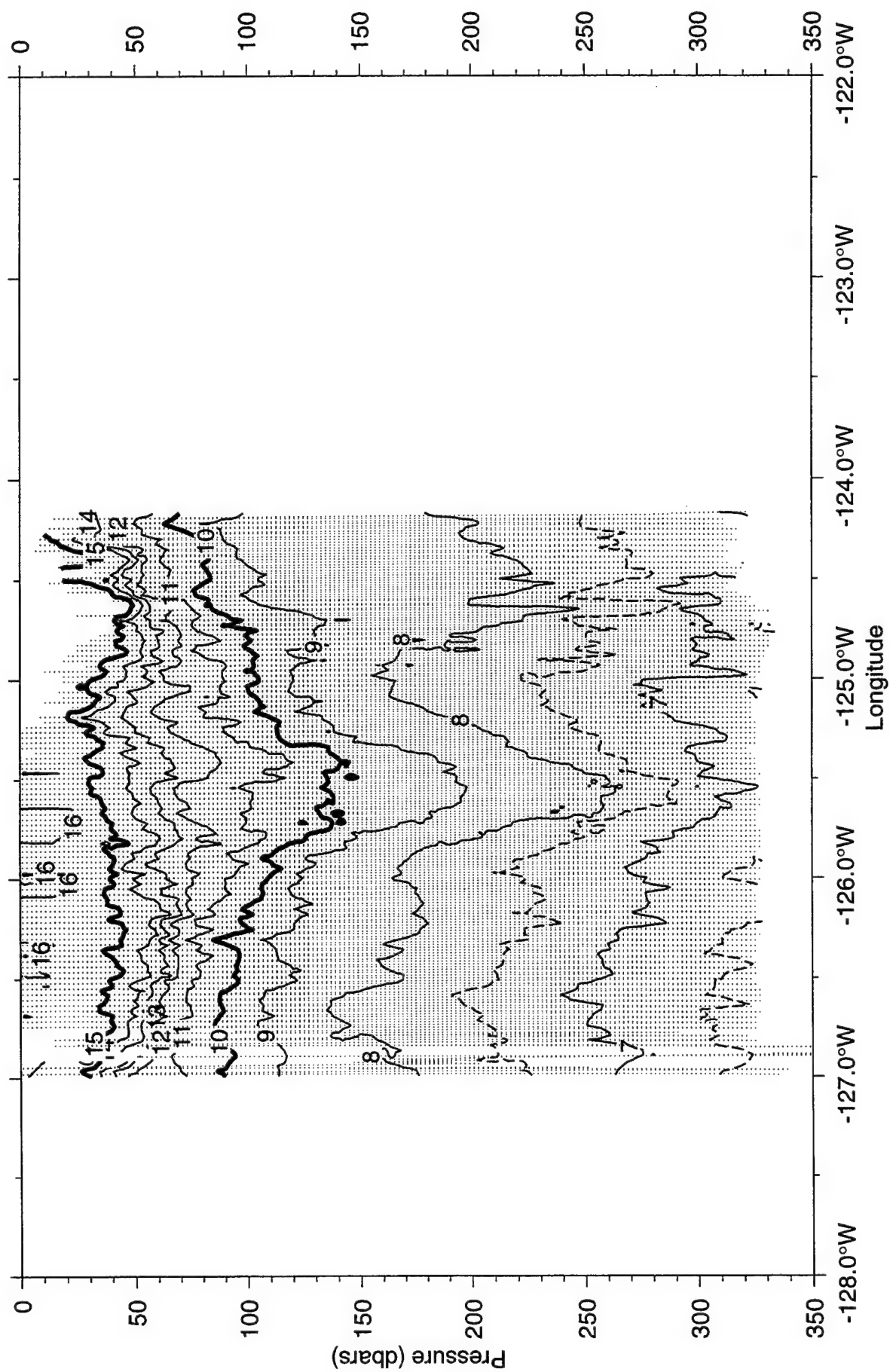


VERTICAL SECTIONS
OF
TEMPERATURE, SALINITY AND SIGMA-T

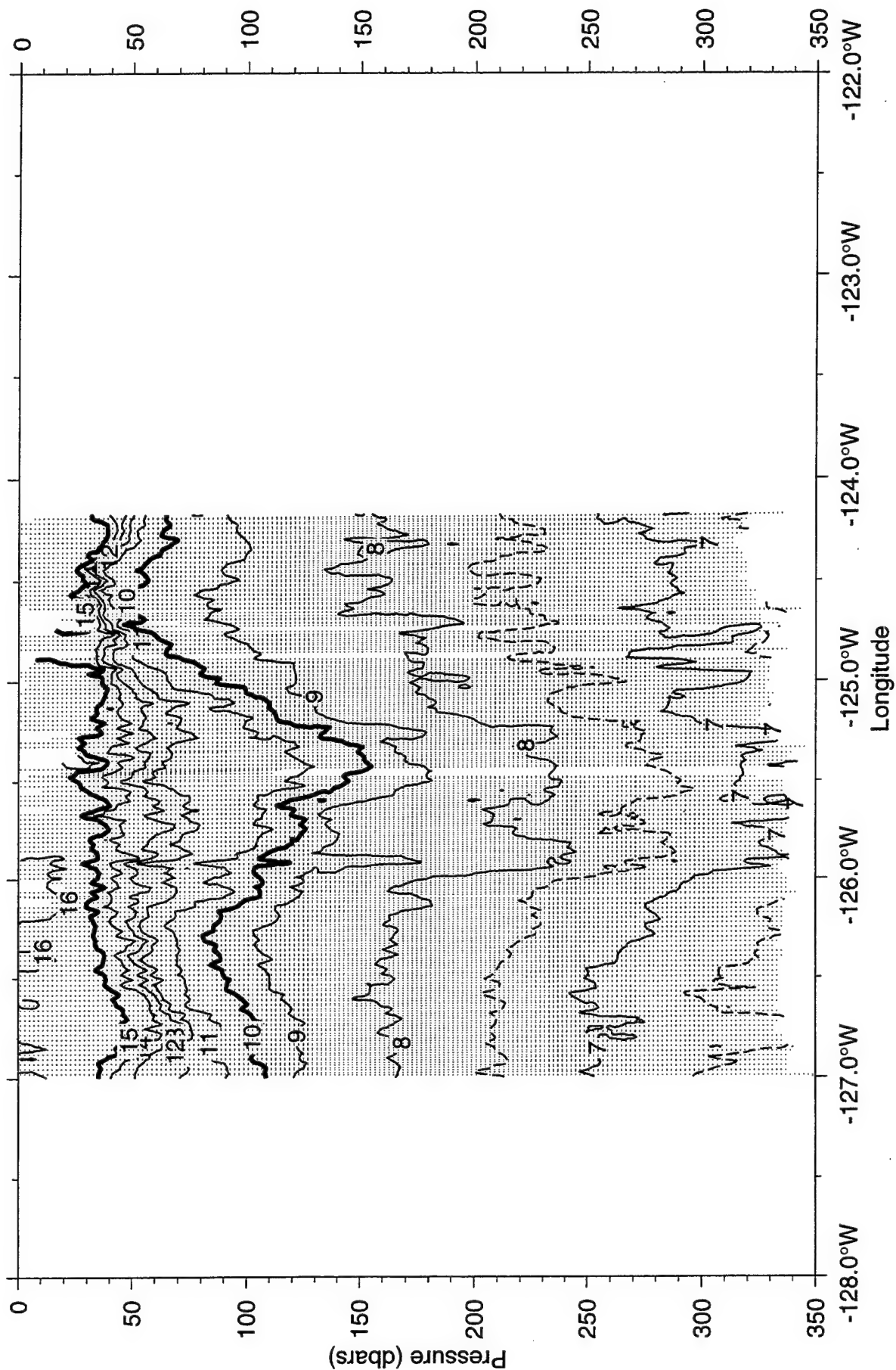
Large Scale Survey, Line 01, 39.50 °N, 6/7/93 - 6/8/93, Temperature (°C)



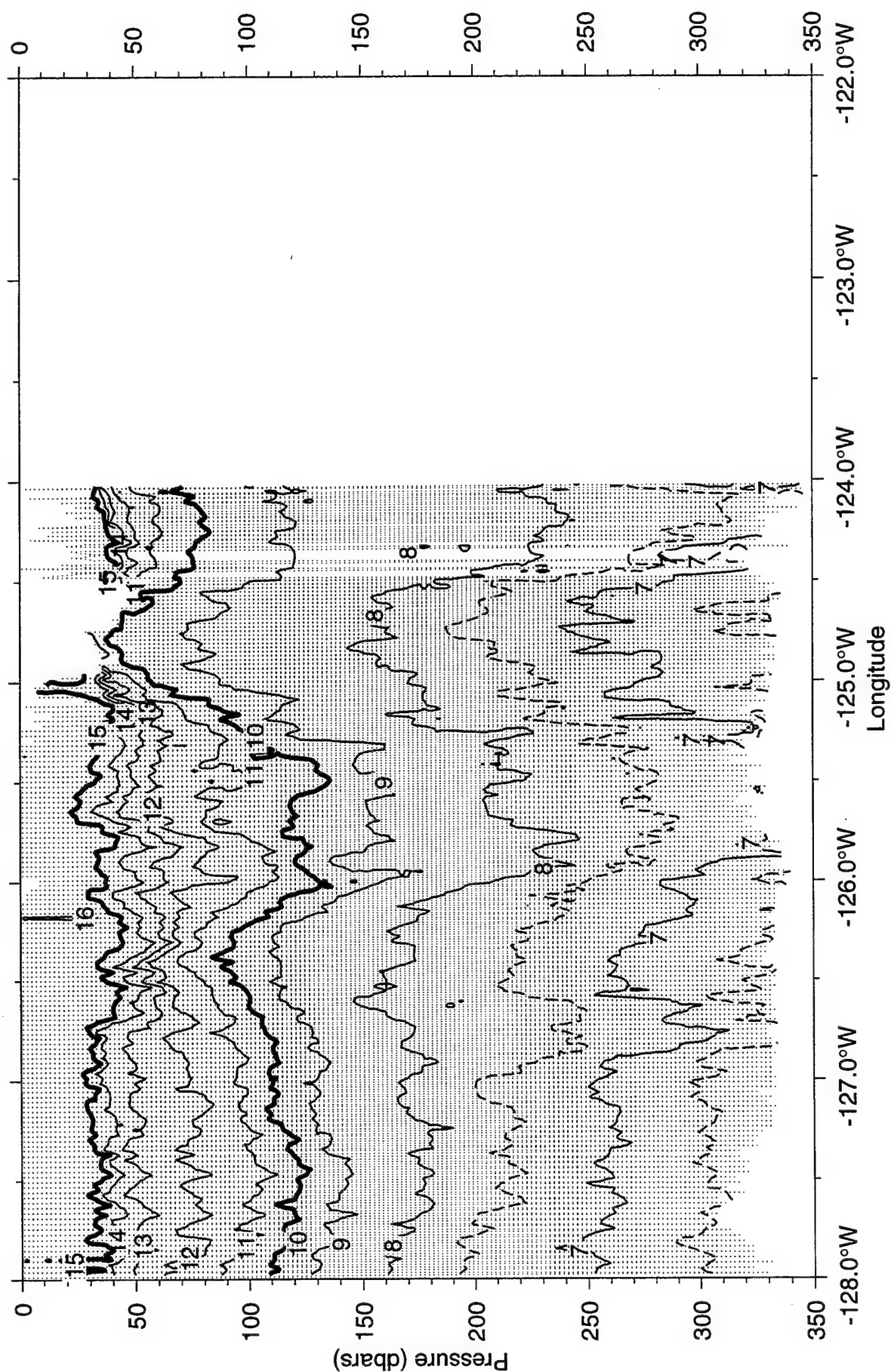
Large Scale Survey, Line 02, 39.25°N, 6/8/93 - 6/9/93, Temperature (°C)



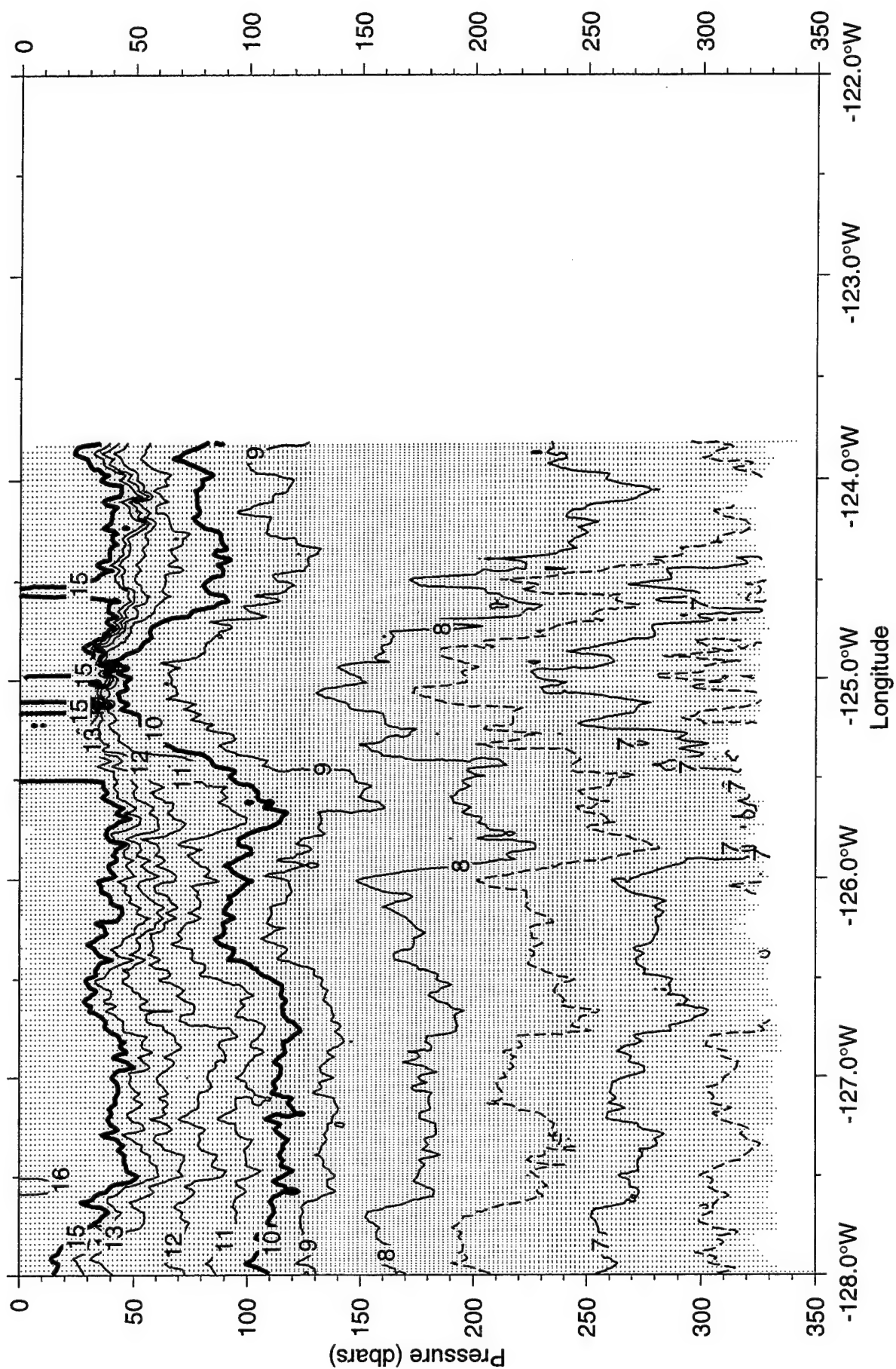
Large Scale Survey, Line 03, 39.00 °N, 6/10/93 - 6/10/93, Temperature (°C)



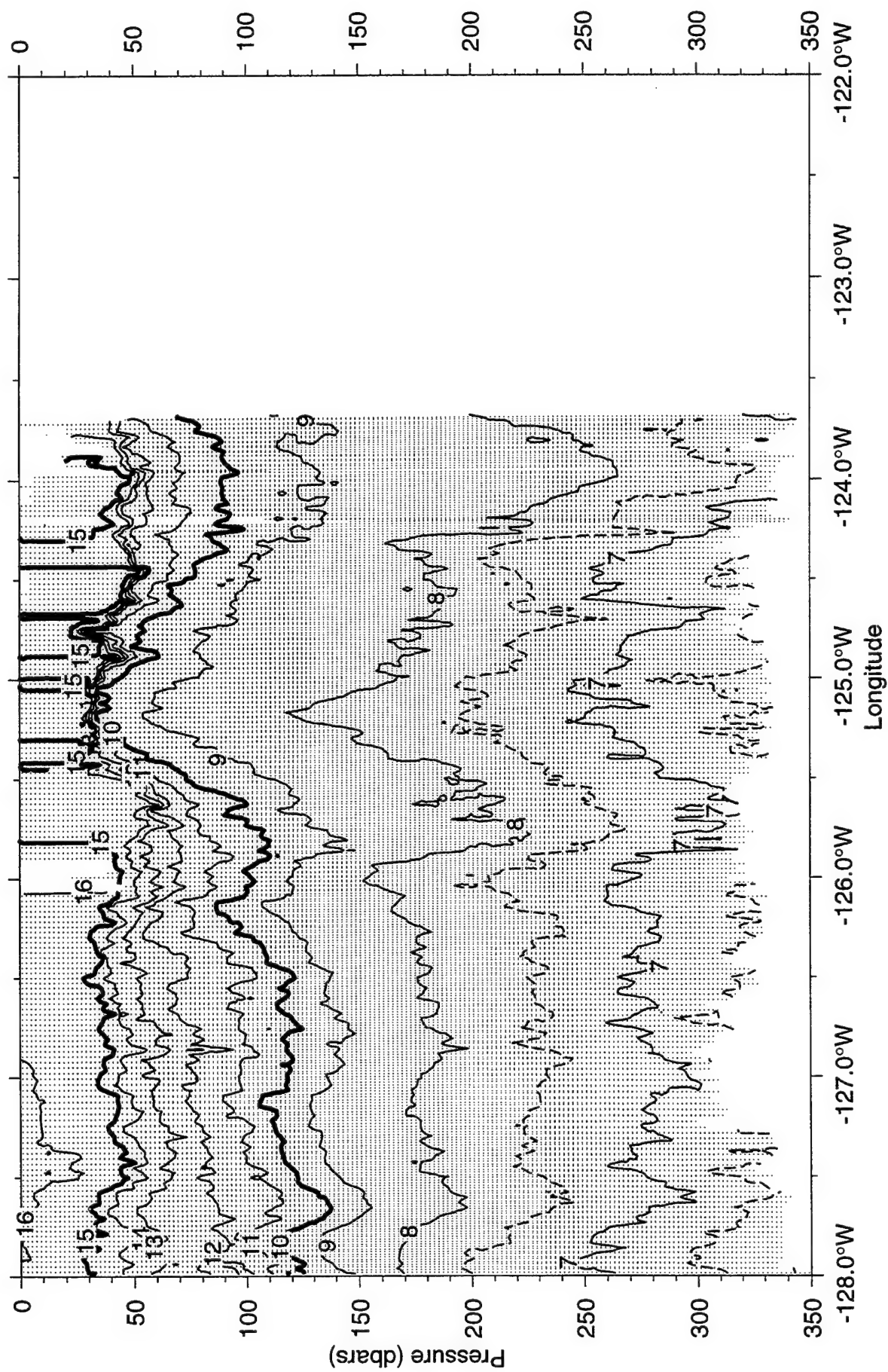
Large Scale Survey, Line 04, 38.75 °N, 6/10/93 - 6/11/93, Temperature (°C)



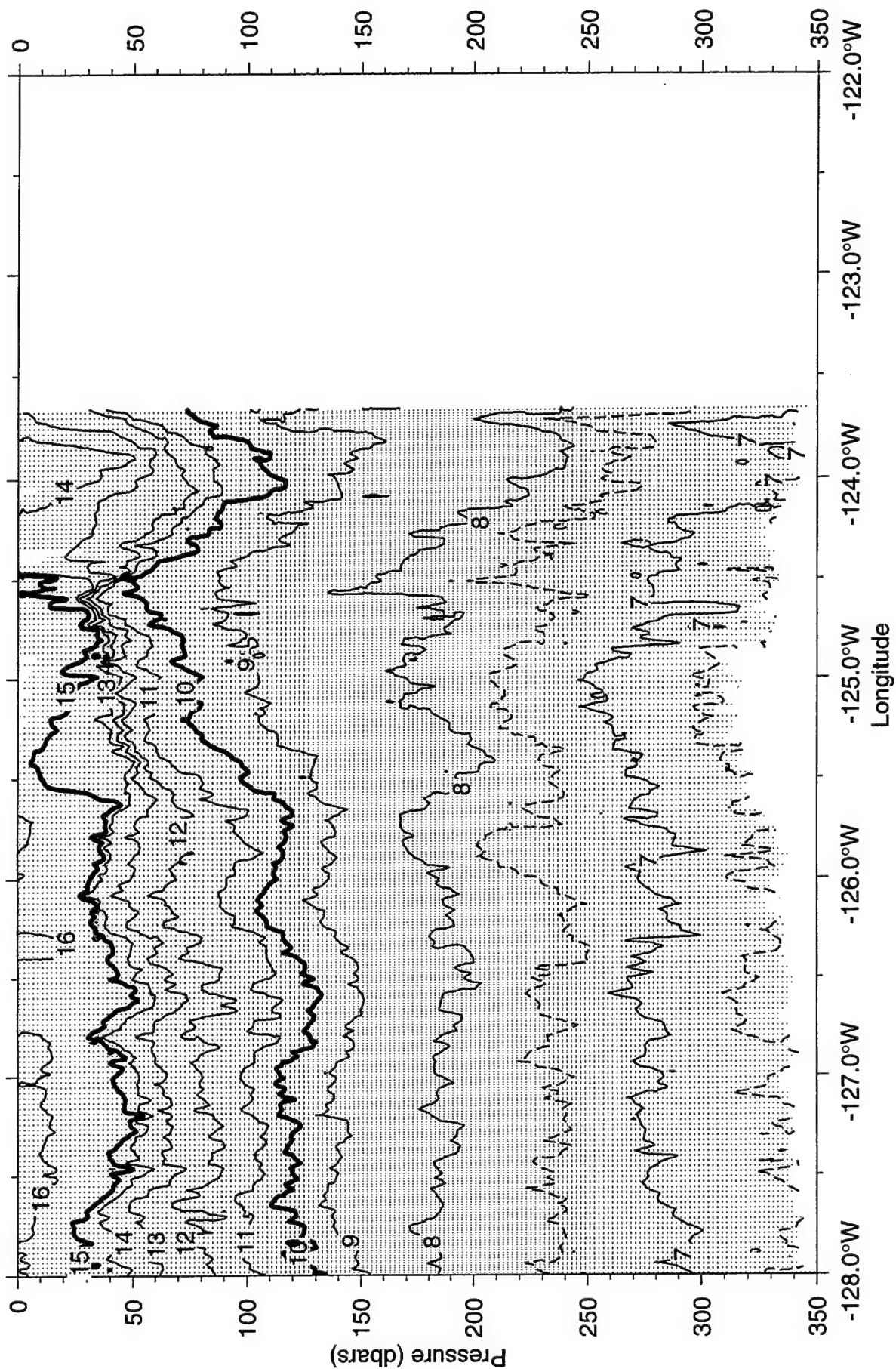
Large Scale Survey, Line 05, 38.50 °N, 6/11/93 - 6/13/93, Temperature (°C)



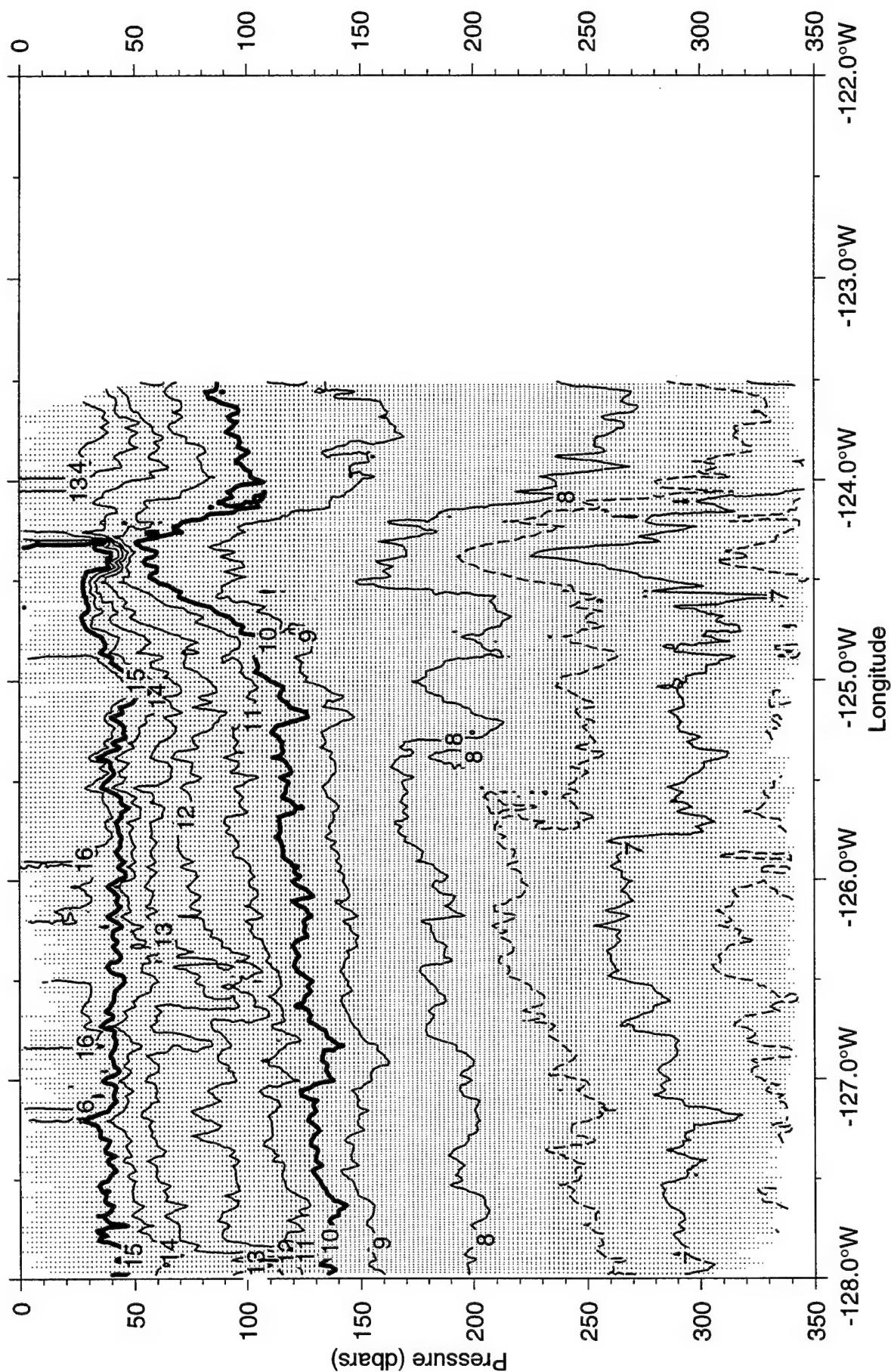
Large Scale Survey, Line 06, 38.25 °N, 6/13/93 - 6/14/93, Temperature (°C)



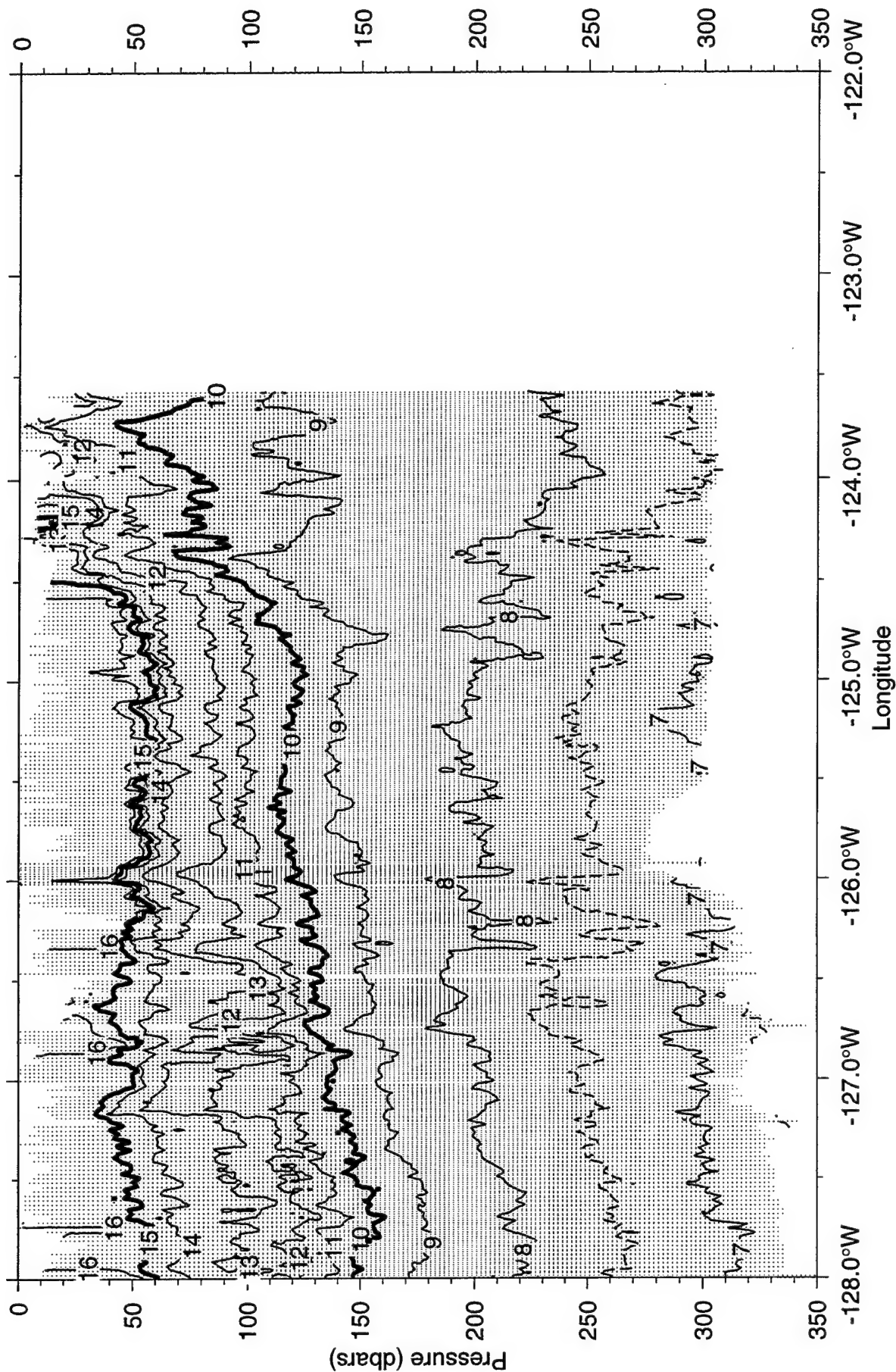
Large Scale Survey, Line 07, 38.00 °N, 6/14/93 - 6/15/93, Temperature (°C)



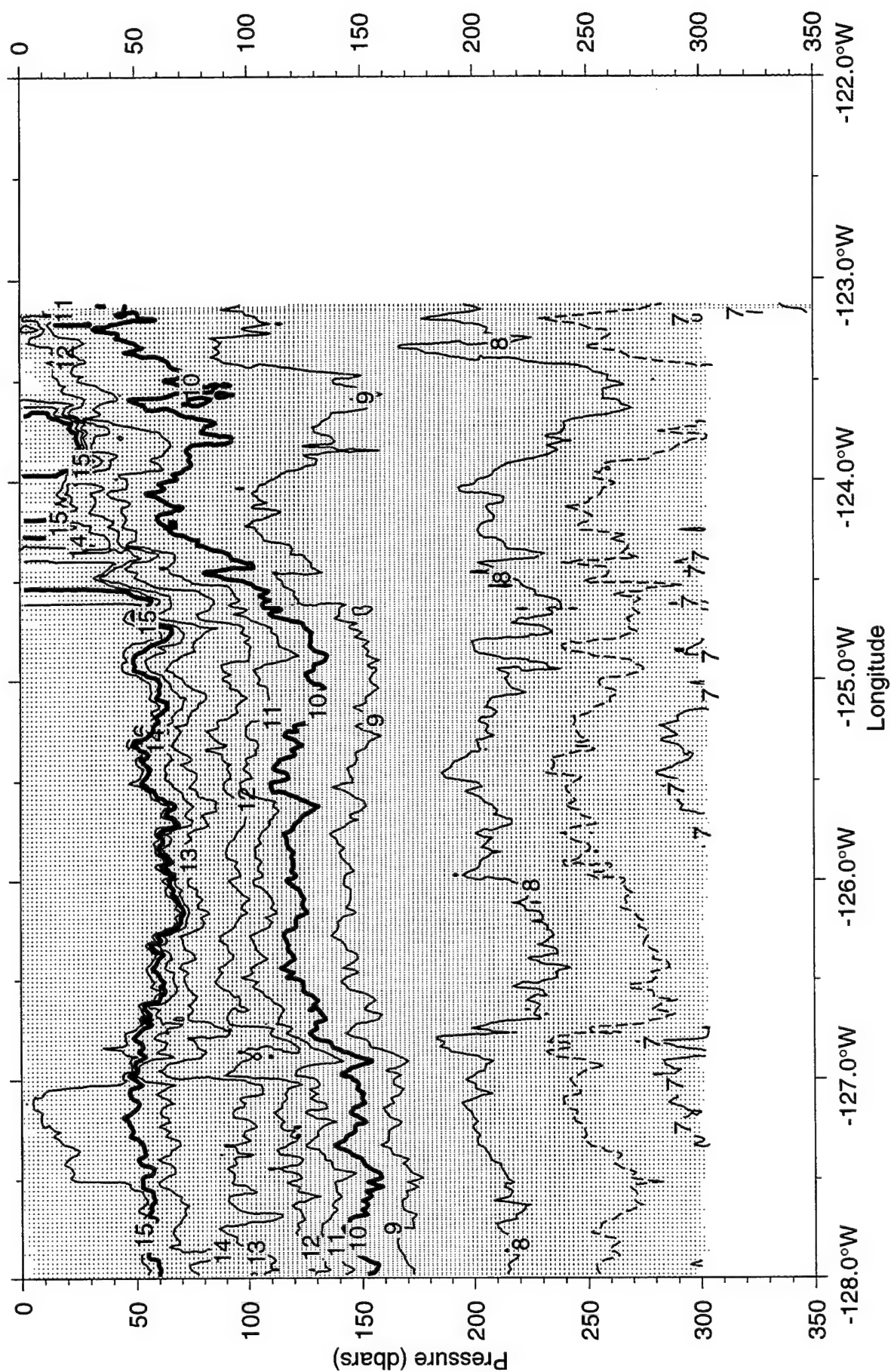
Large Scale Survey, Line 08, 37.75 °N, 6/15/93 - 6/16/93, Temperature (°C)



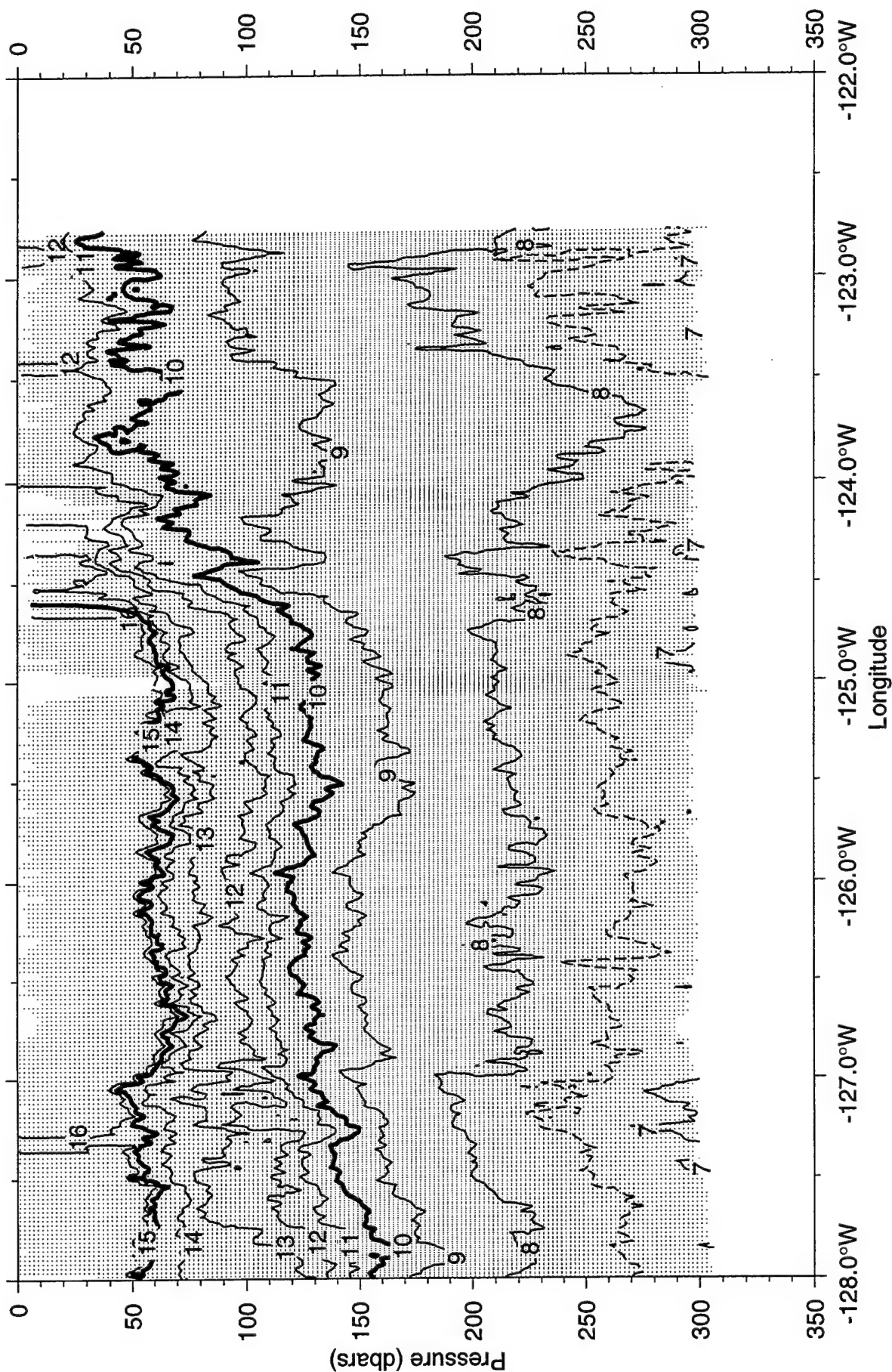
Large Scale Survey, Line 09, 37.50 °N, 6/16/93 - 6/19/93, Temperature (°C)



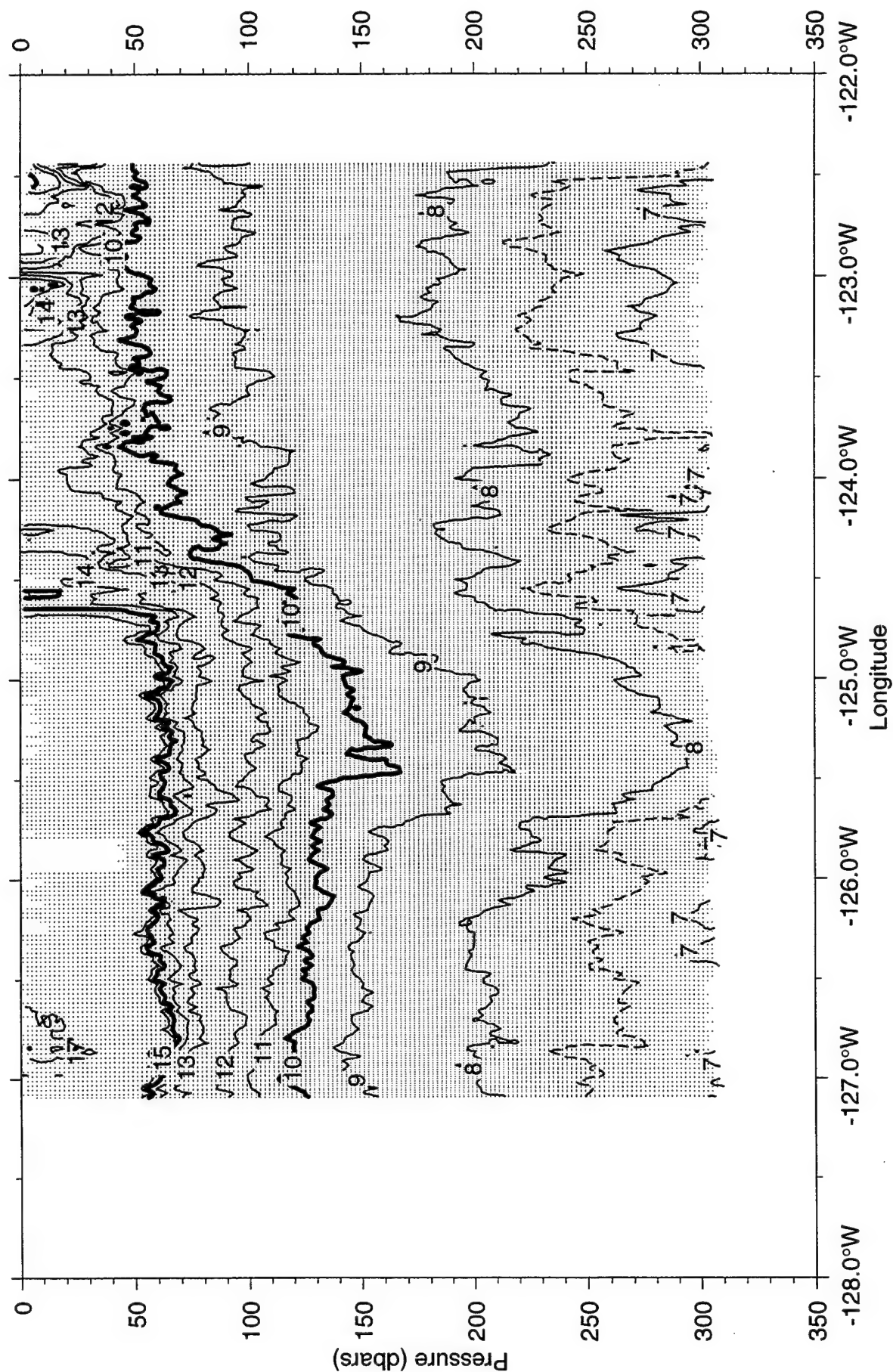
Large Scale Survey, Line 10, 37.25 °N, 6/21/93 - 6/23/93, Temperature (°C)



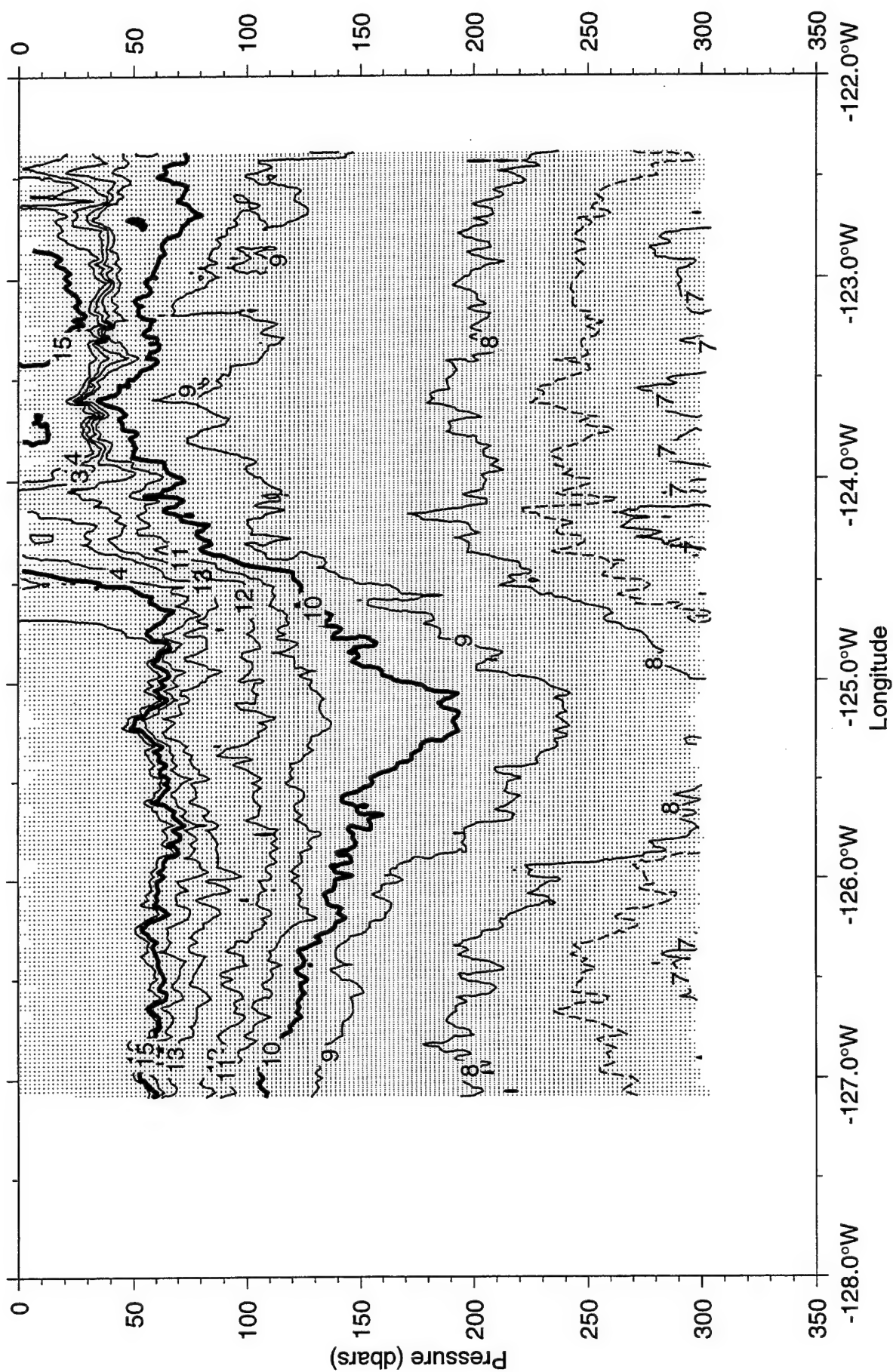
Large Scale Survey, Line 11, 37.01 °N, 6/23/93 - 6/24/93, Temperature (°C)



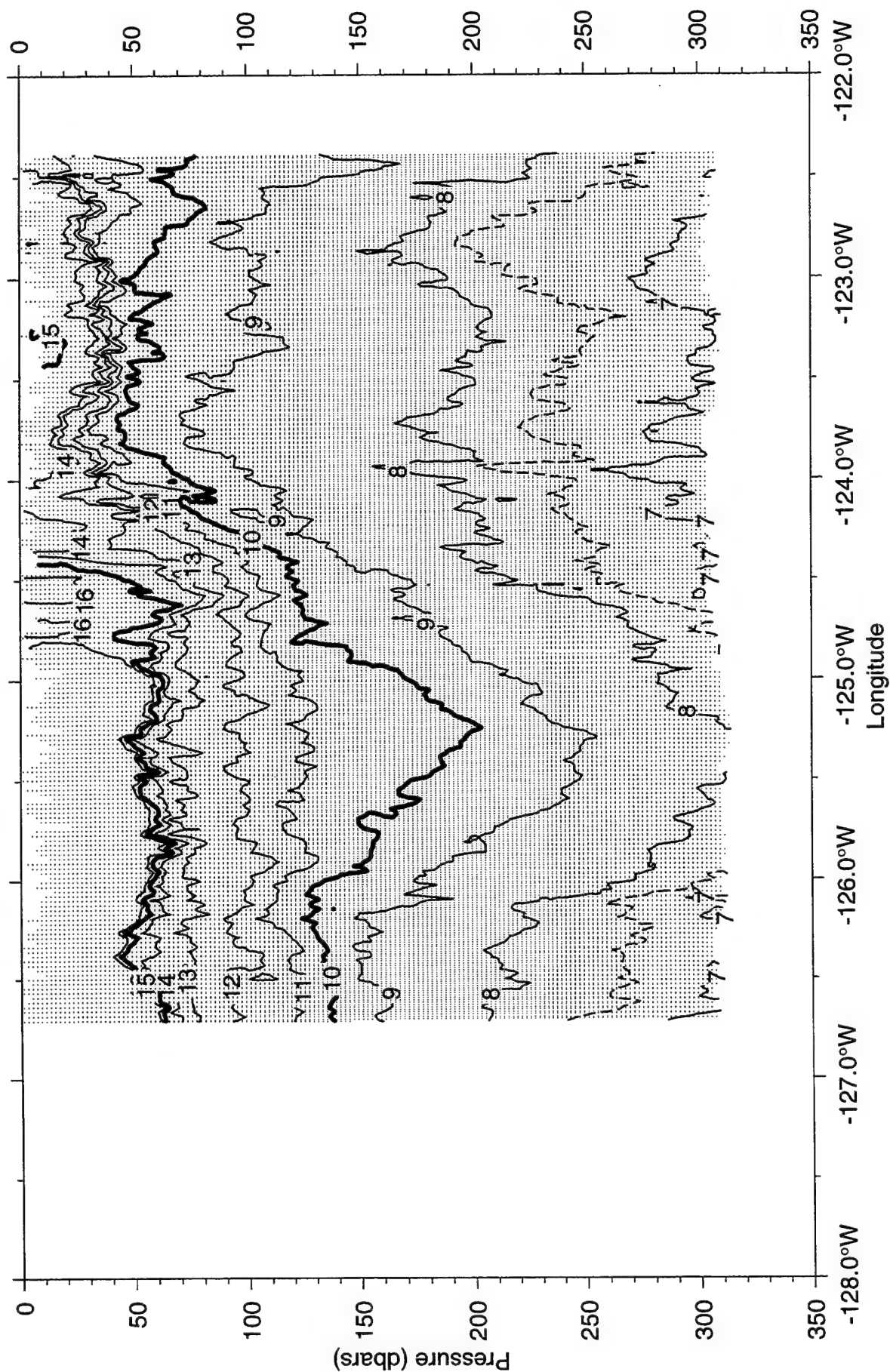
Large Scale Survey, Line 12, 36.75 °N, 6/24/93 - 6/26/93, Temperature (°C)



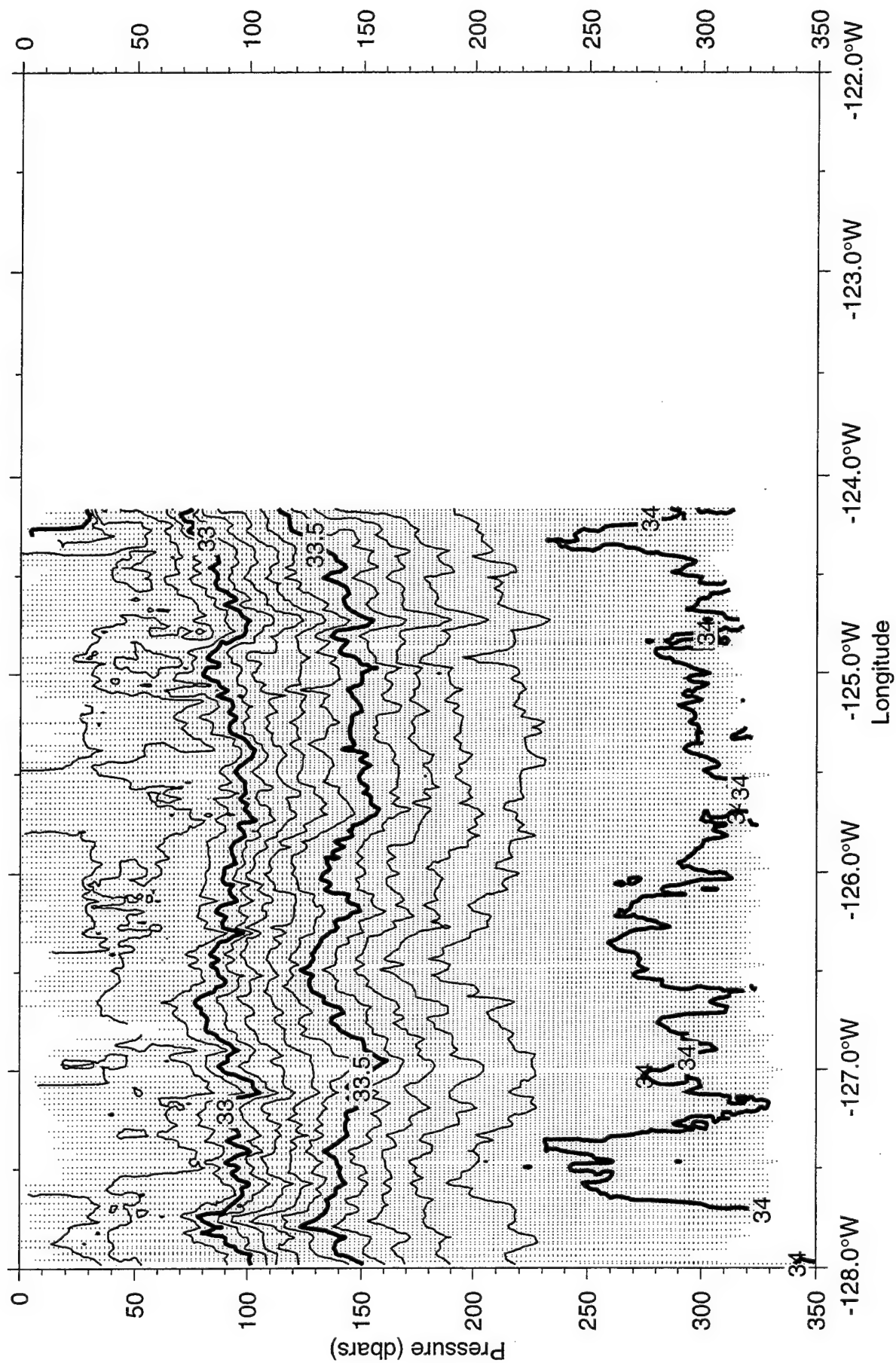
Large Scale Survey, Line 13, 36.50 °N, 6/26/93 - 6/27/93, Temperature (°C)



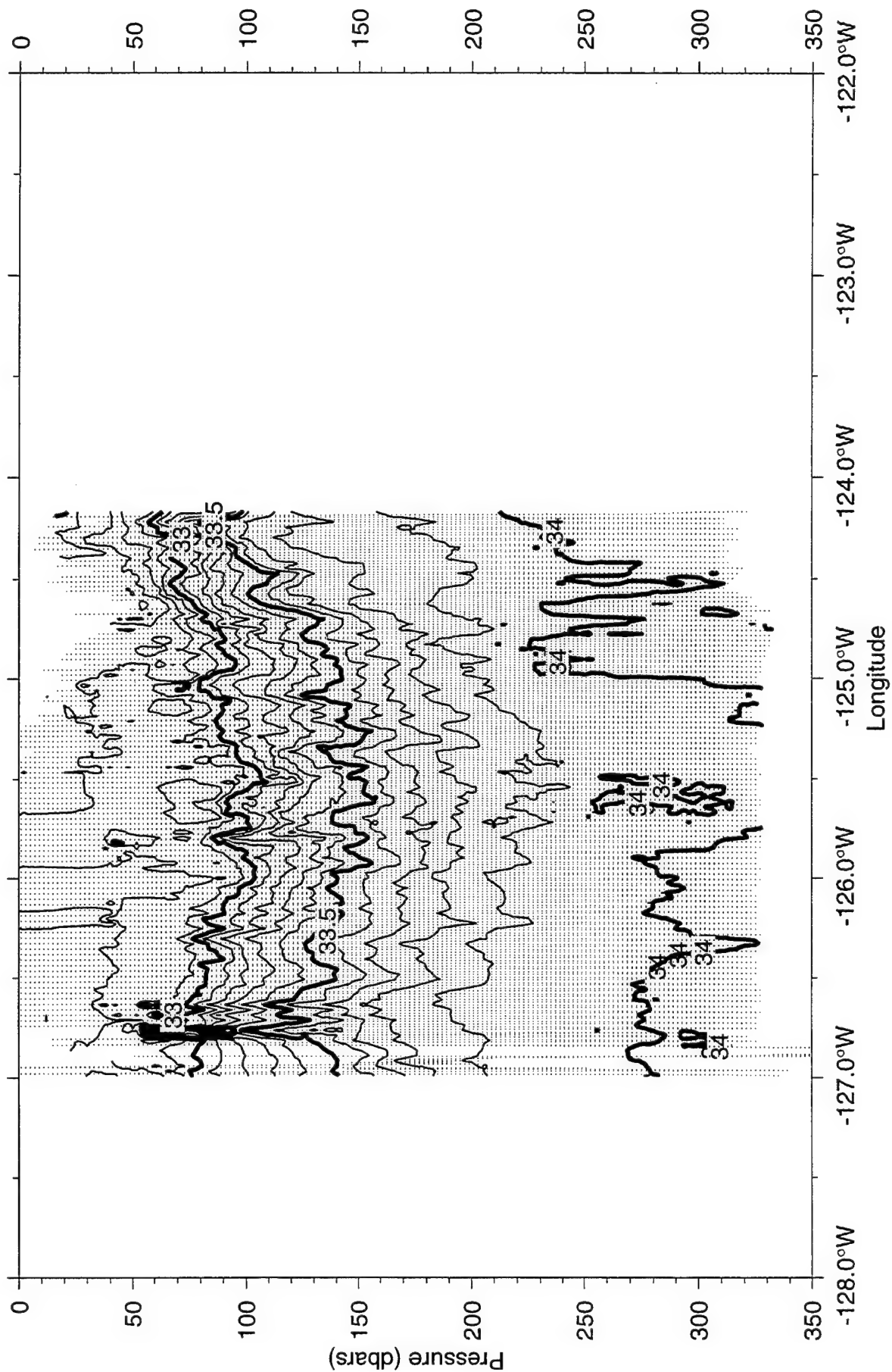
Large Scale Survey, Line 14, 36.25 °N, 6/27/93 - 6/28/93, Temperature (°C)



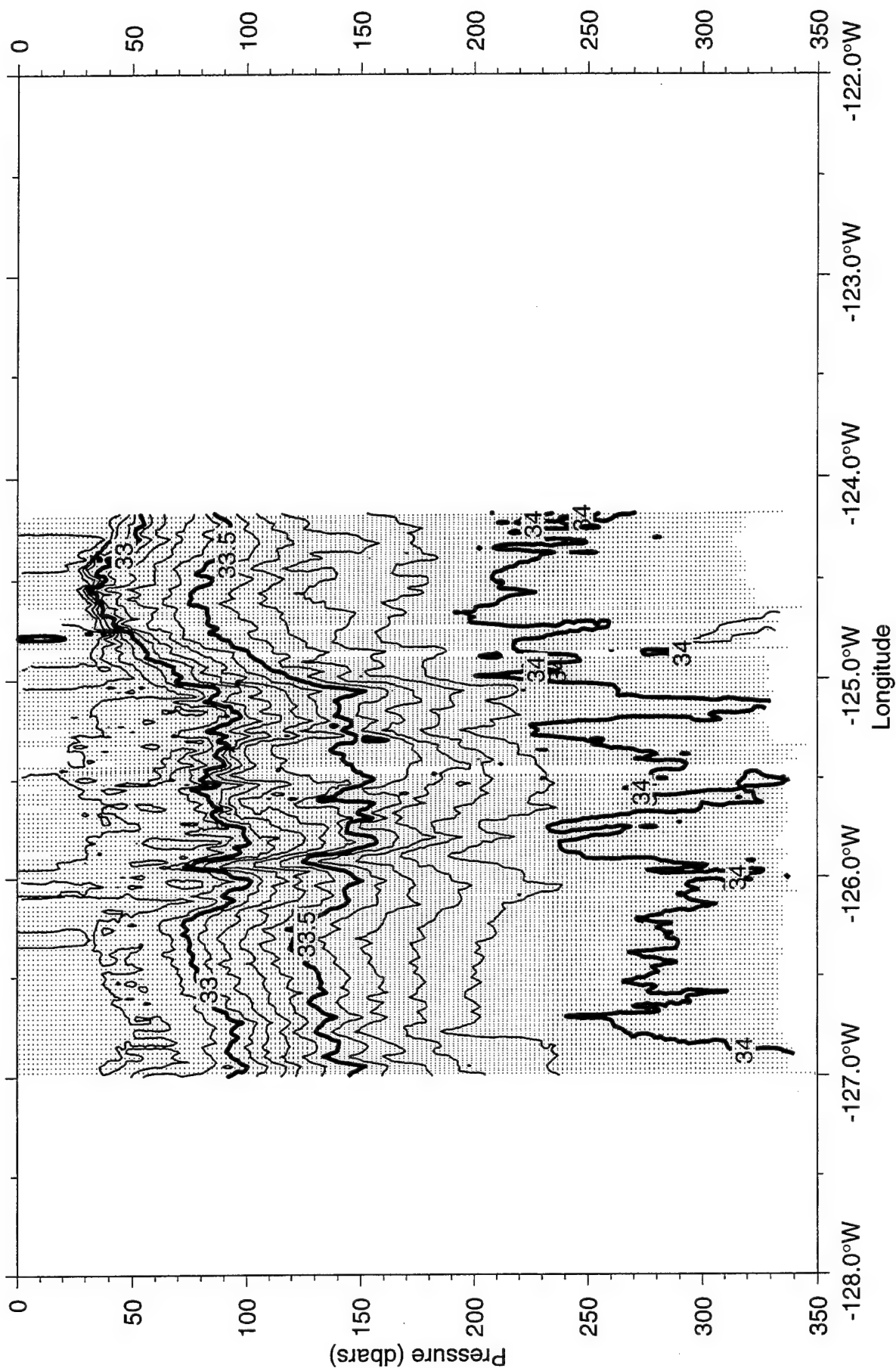
Large Scale Survey, Line 01, 39.50 °N, 6/7/93 - 6/8/93, Salinity



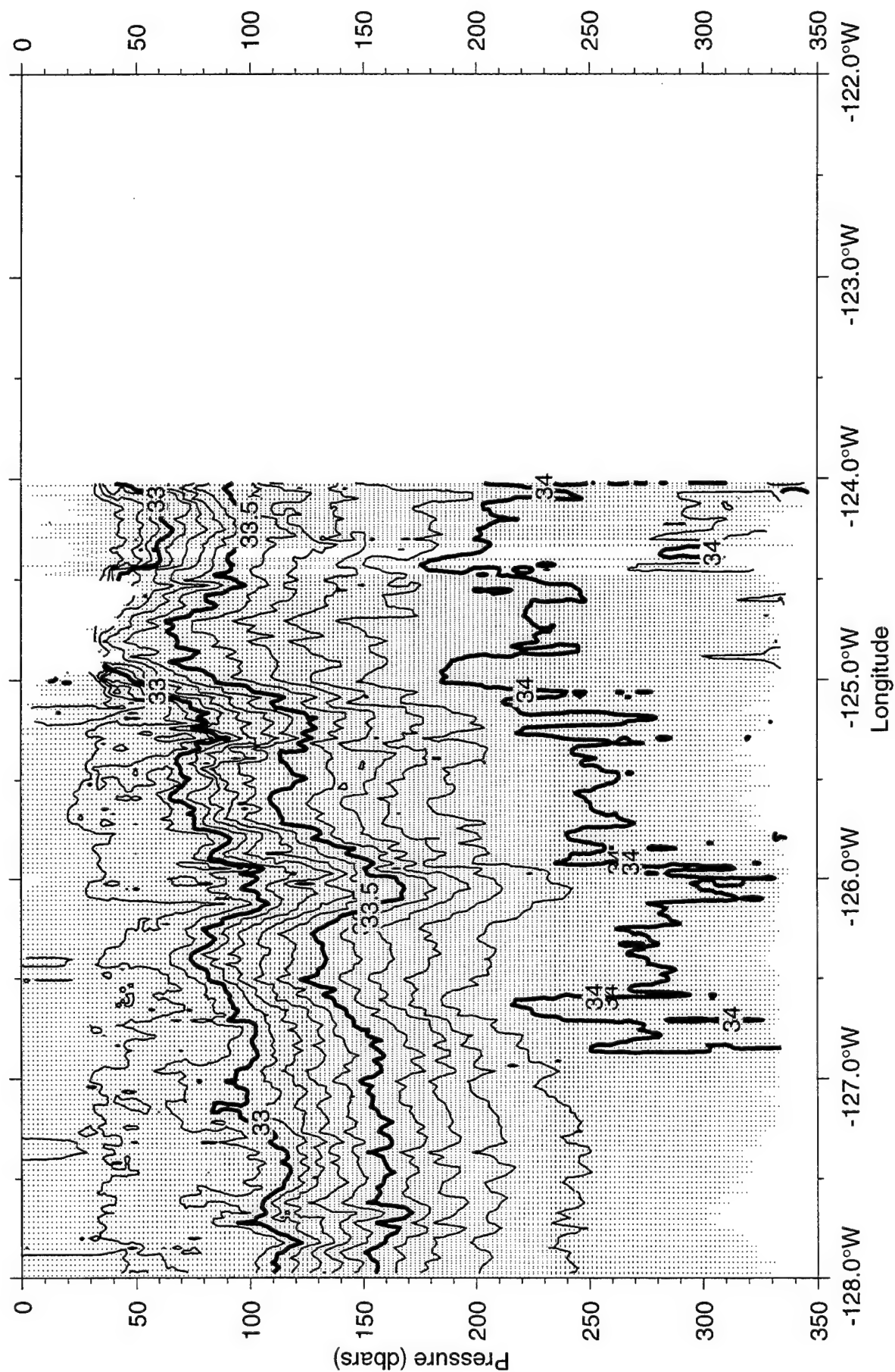
Large Scale Survey, Line 02, 39.25 °N, 6/8/93 - 6/9/93, Salinity



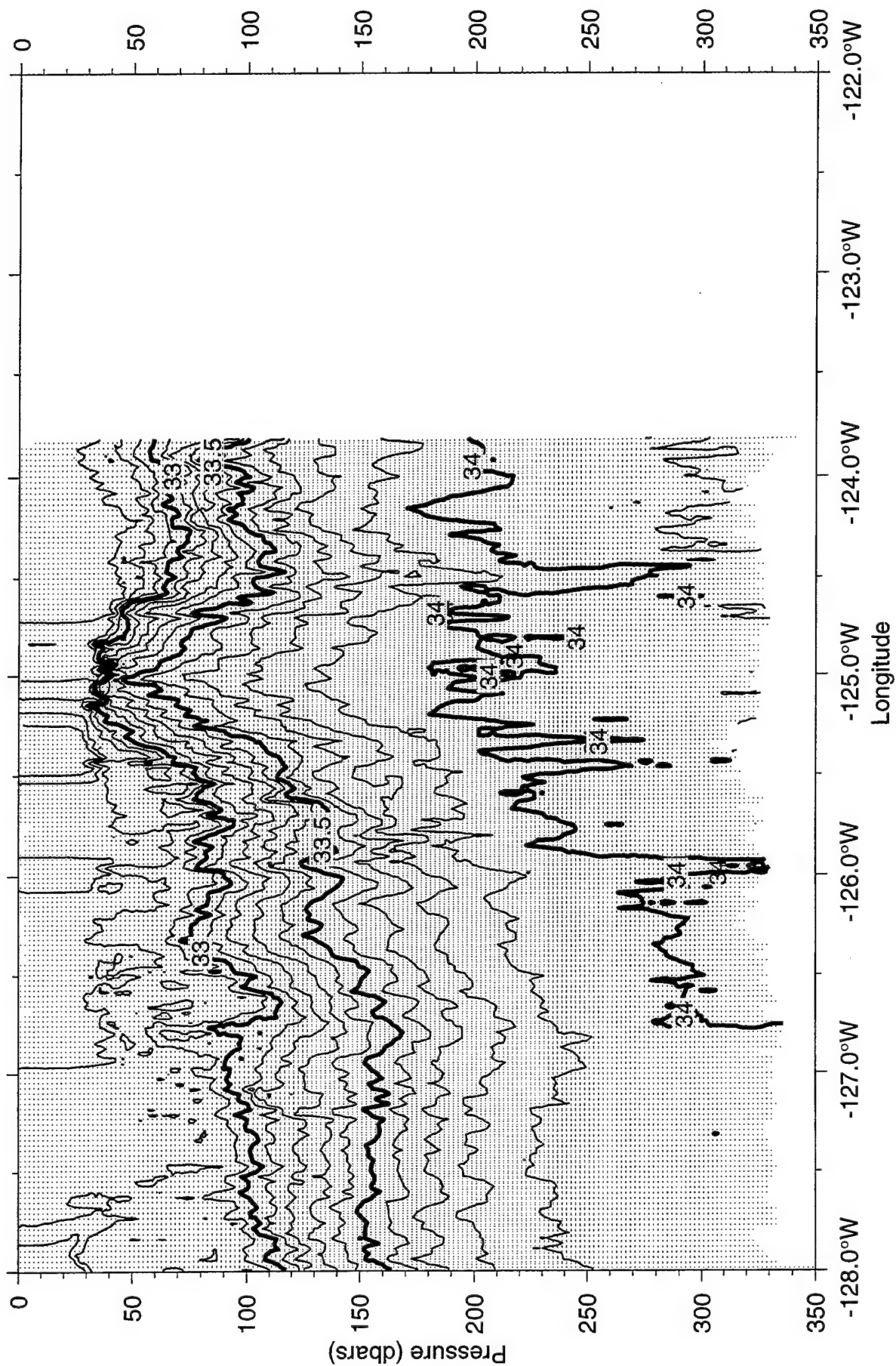
Large Scale Survey, Line 03, 39.00 °N, 6/10/93 - 6/10/93, Salinity



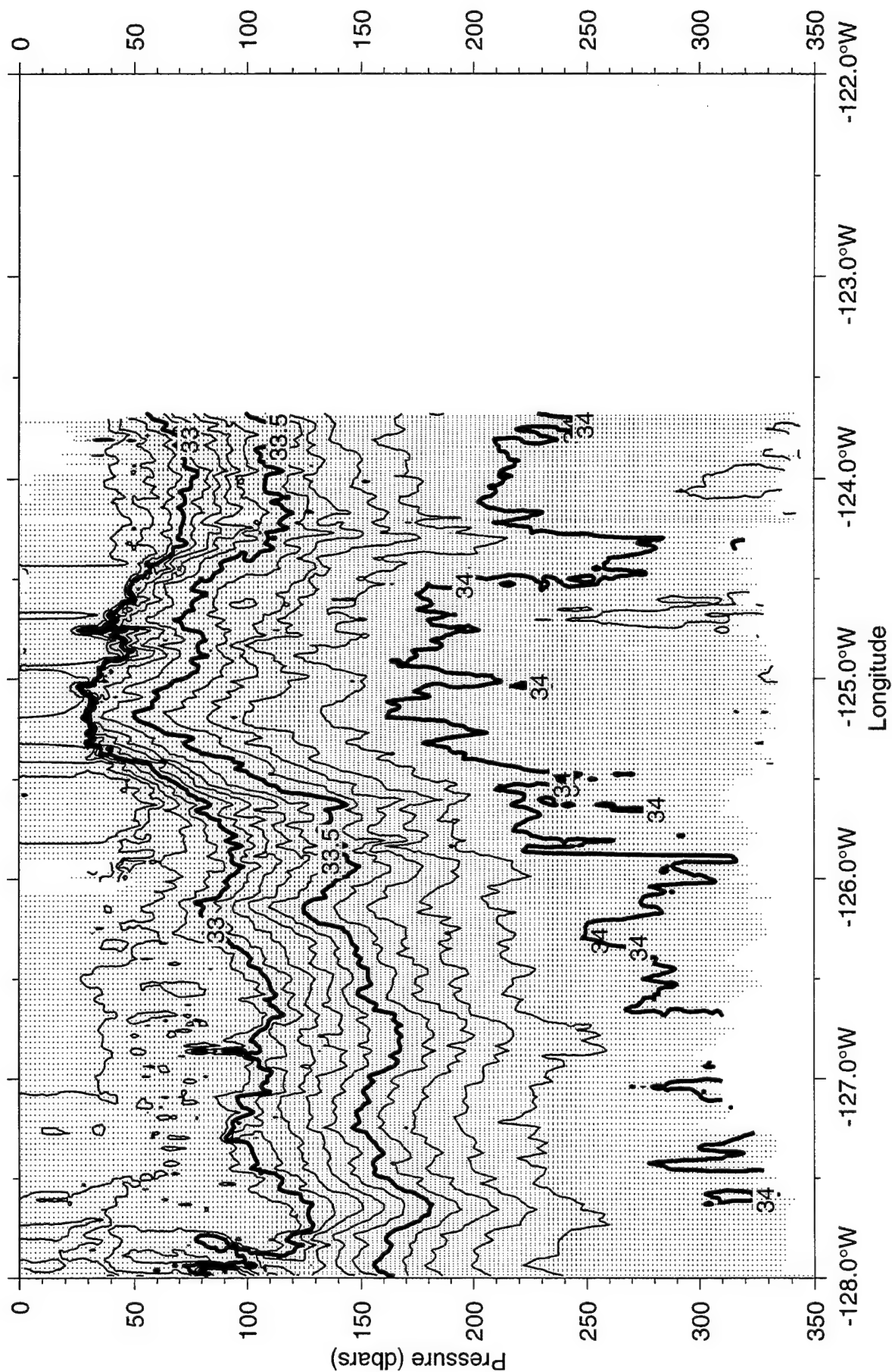
Large Scale Survey, Line 04, 38.75 °N, 6/10/93 - 6/11/93, Salinity



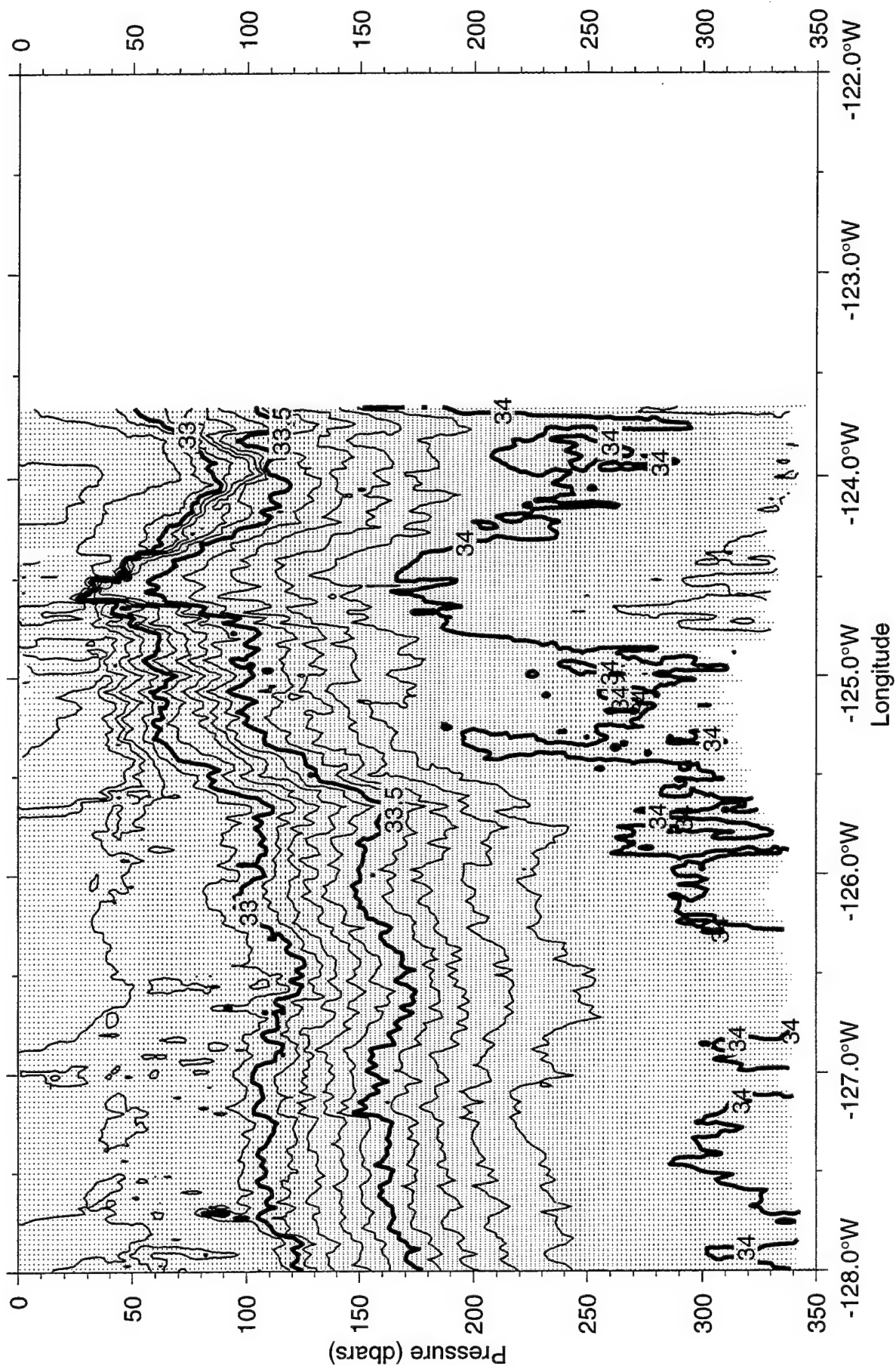
Large Scale Survey, Line 05, 38.50 °N, 6/11/93 - 6/13/93, Salinity



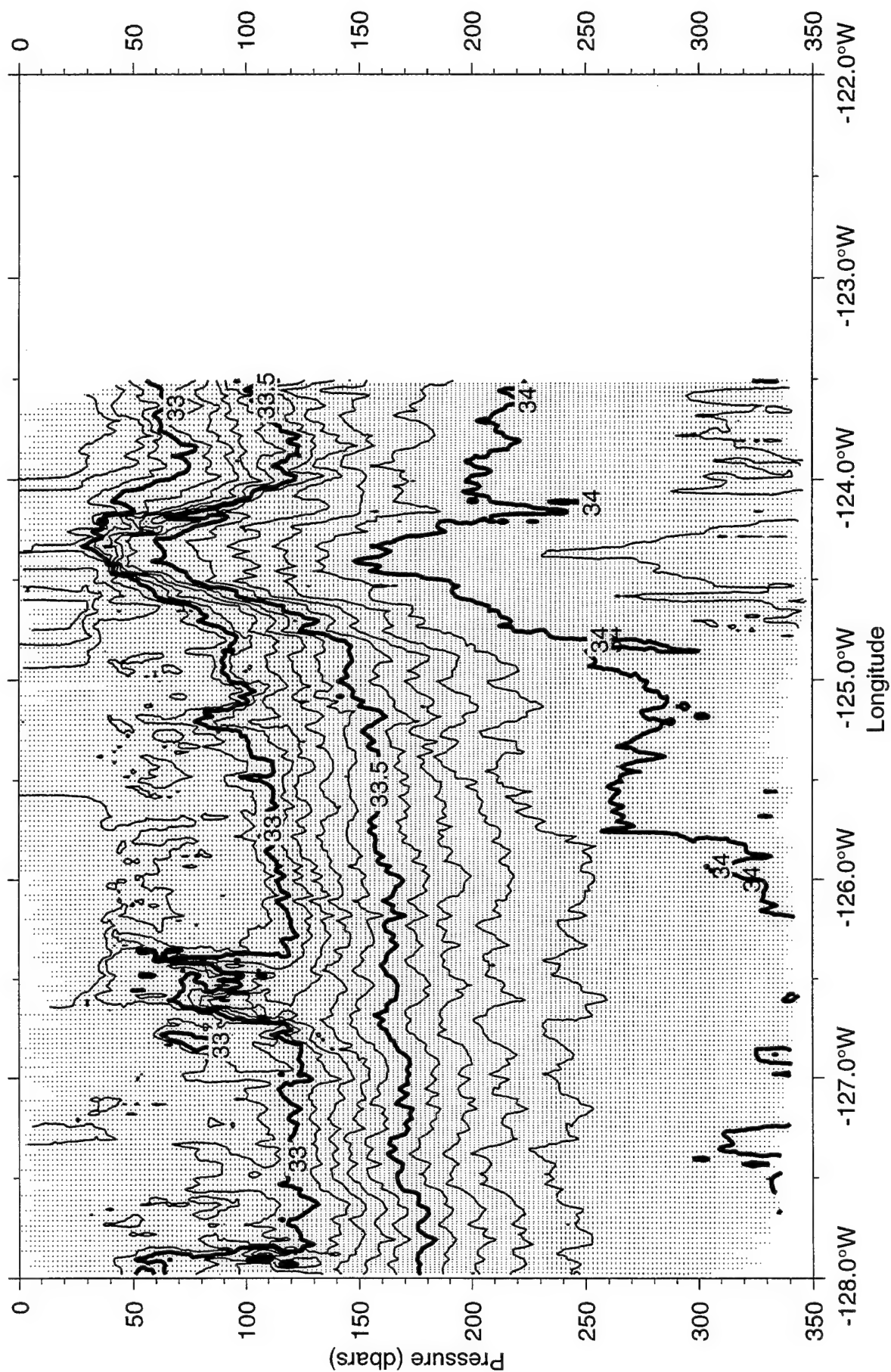
Large Scale Survey, Line 06, 38.25 °N, 6/13/93 - 6/14/93, Salinity



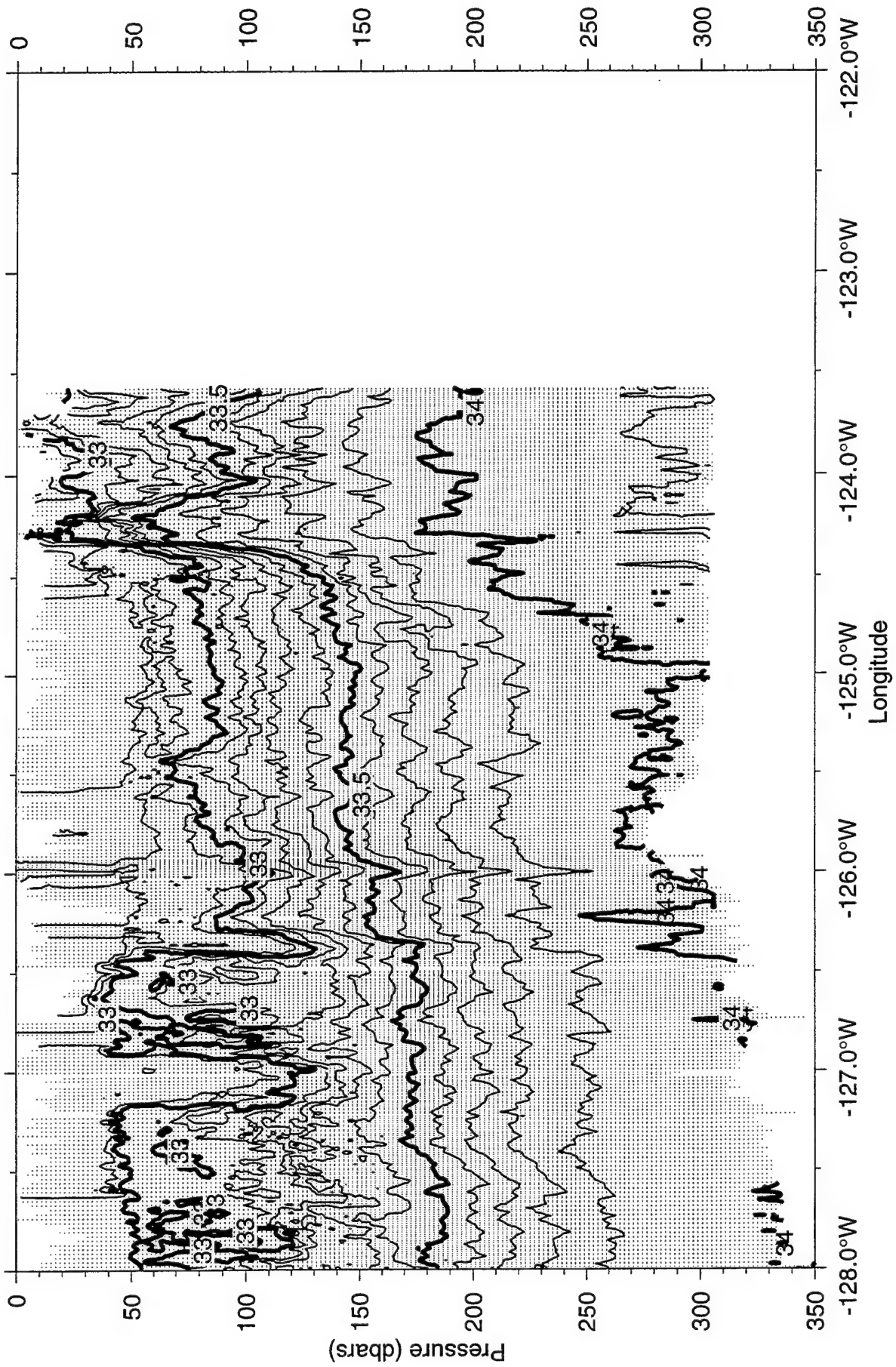
Large Scale Survey, Line 07, 38.00 °N, 6/14/93 - 6/15/93, Salinity



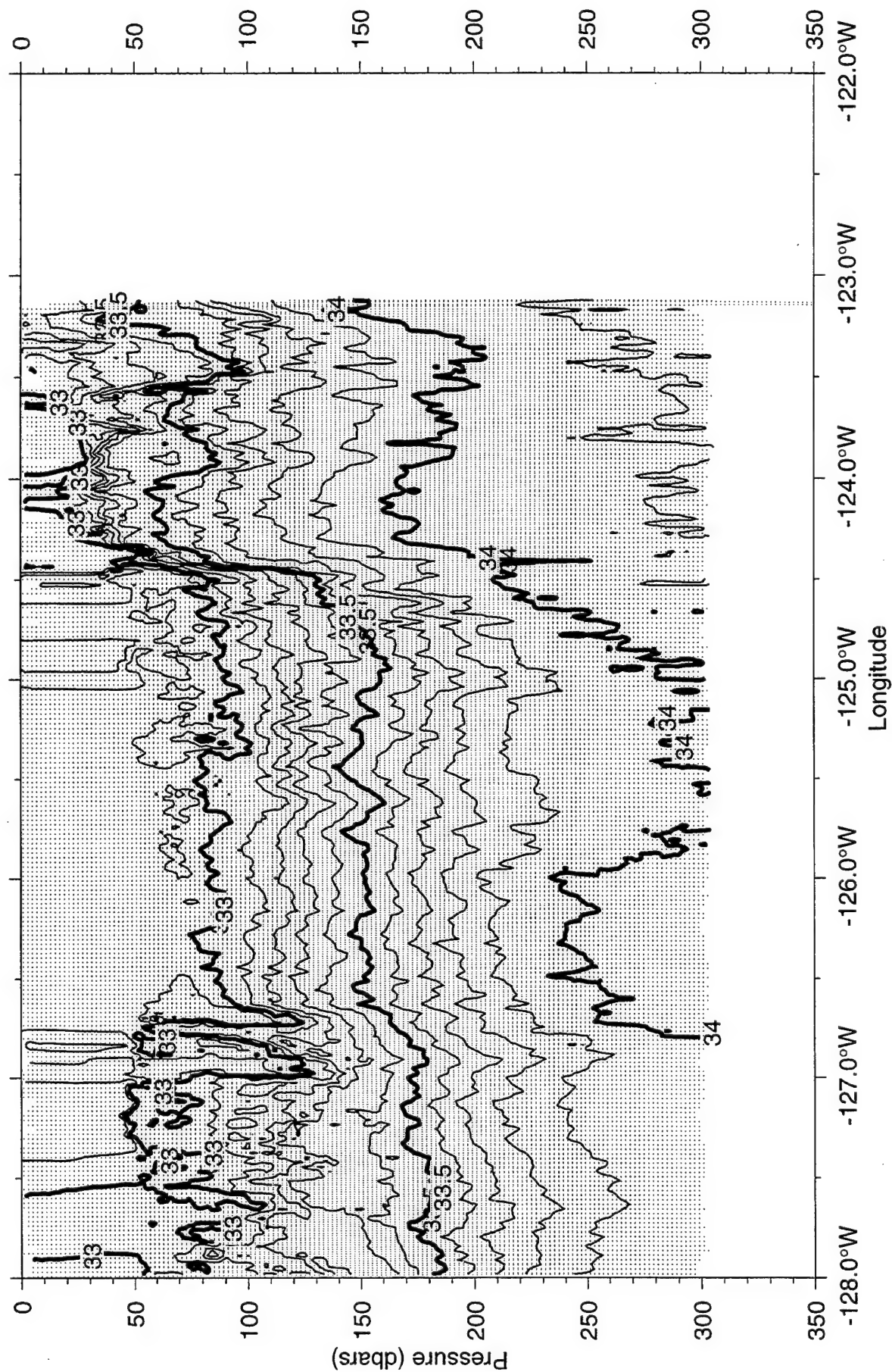
Large Scale Survey, Line 08, 37.75 °N, 6/15/93 - 6/16/93, Salinity



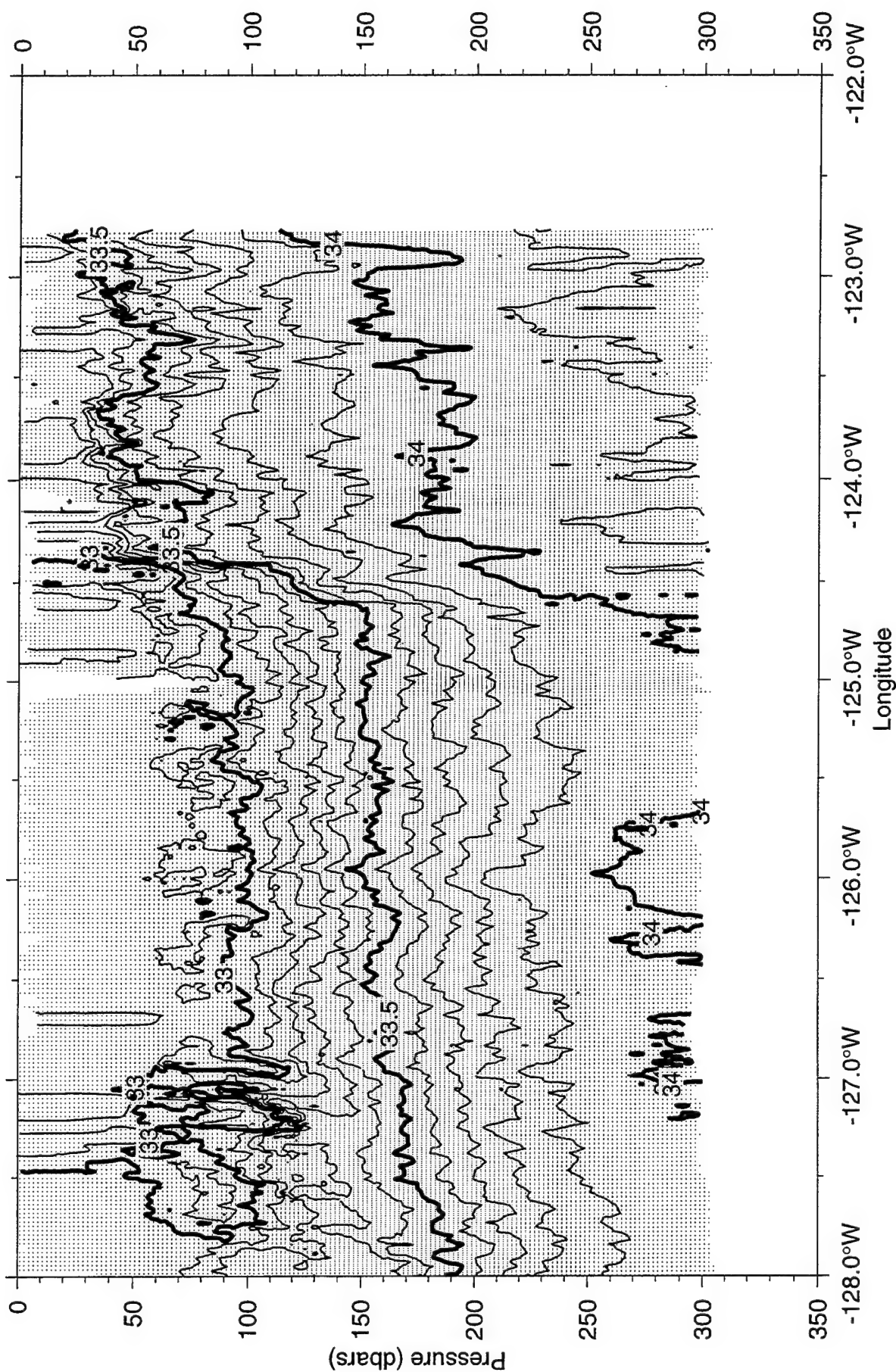
Large Scale Survey, Line 09, 37.50 °N, 6/16/93 - 6/19/93, Salinity



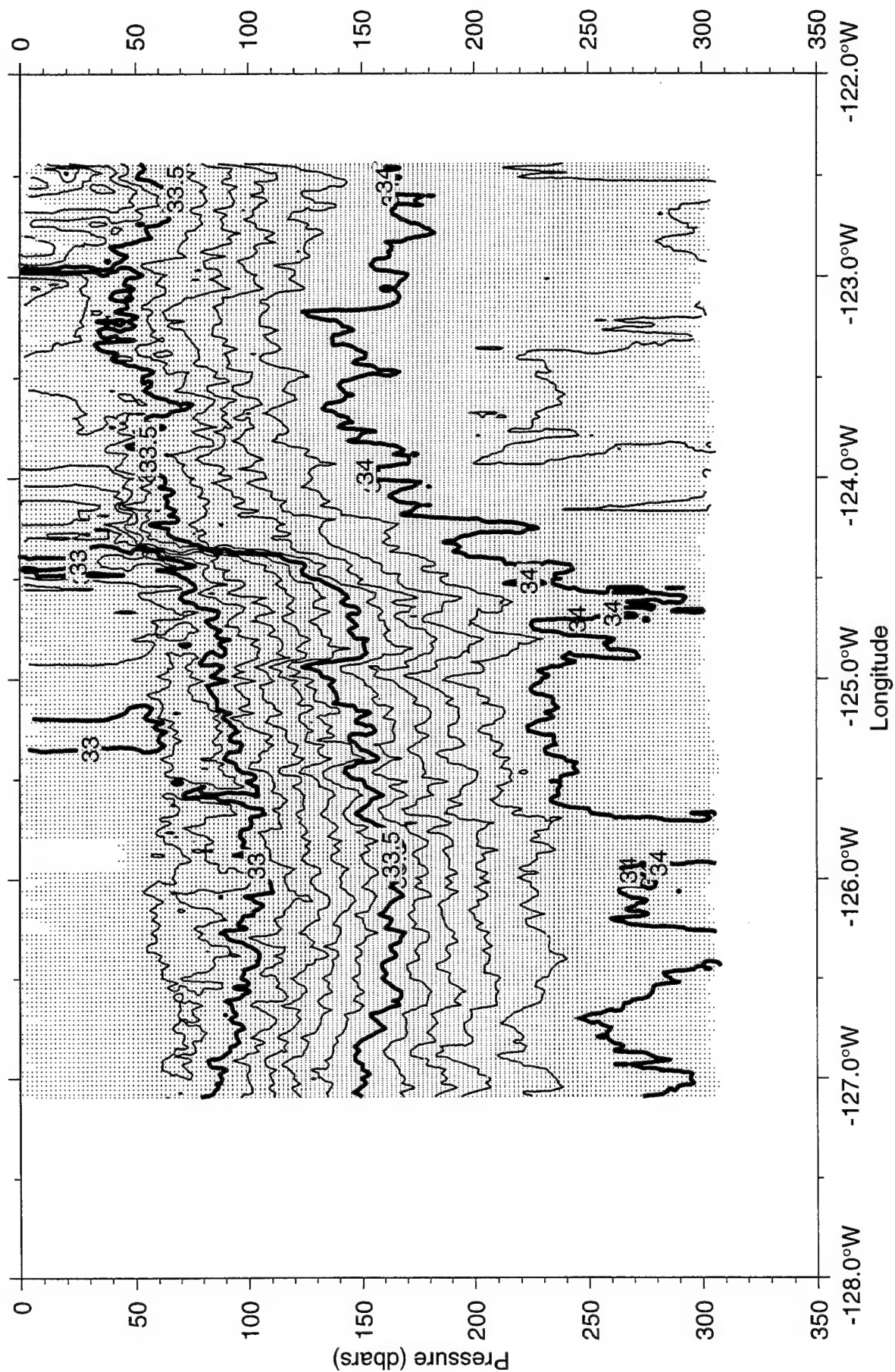
Large Scale Survey, Line 10, 37.25 °N, 6/21/93 - 6/23/93, Salinity



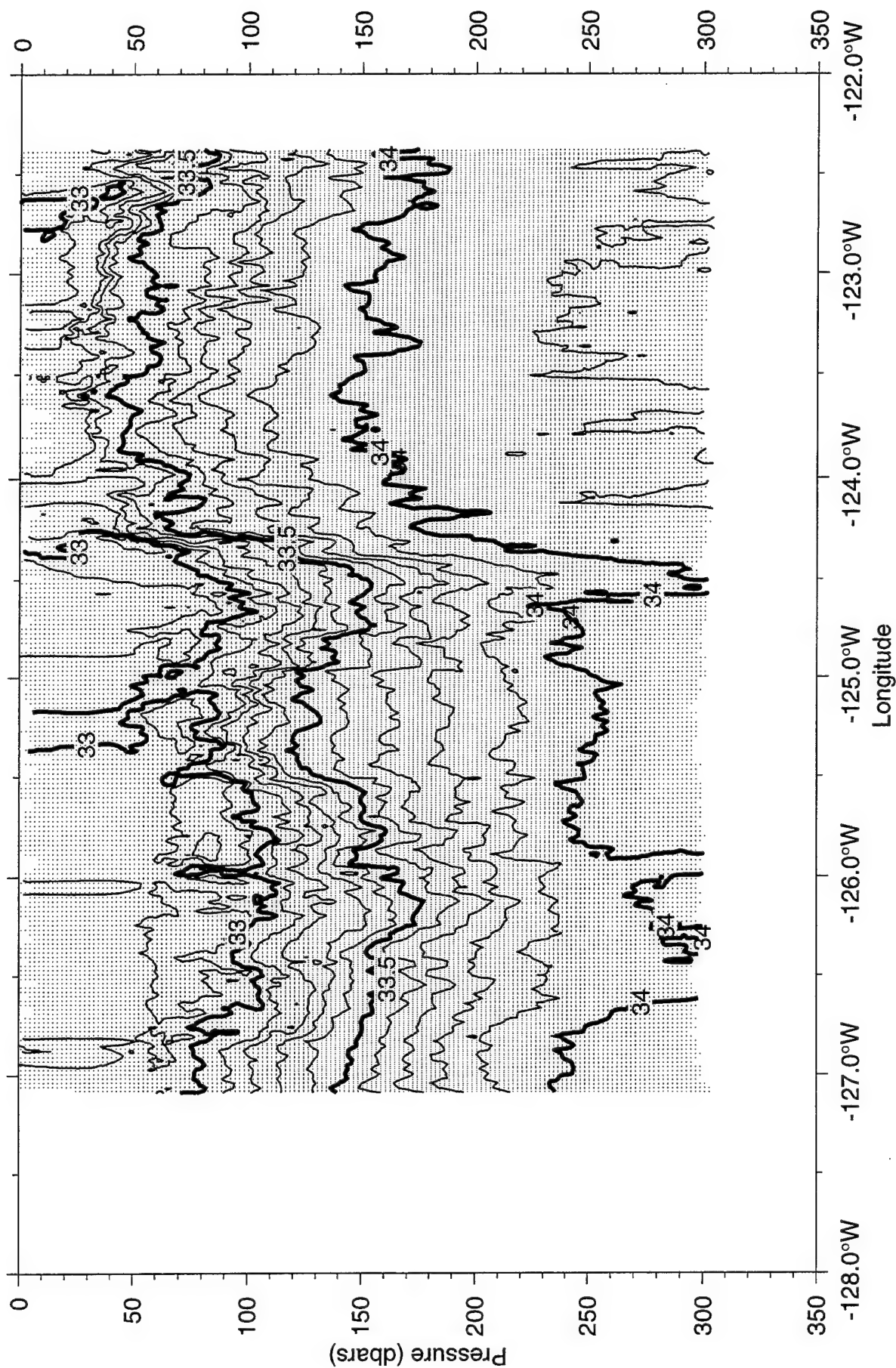
Large Scale Survey, Line 11, 37.01 °N, 6/23/93 - 6/24/93, Salinity



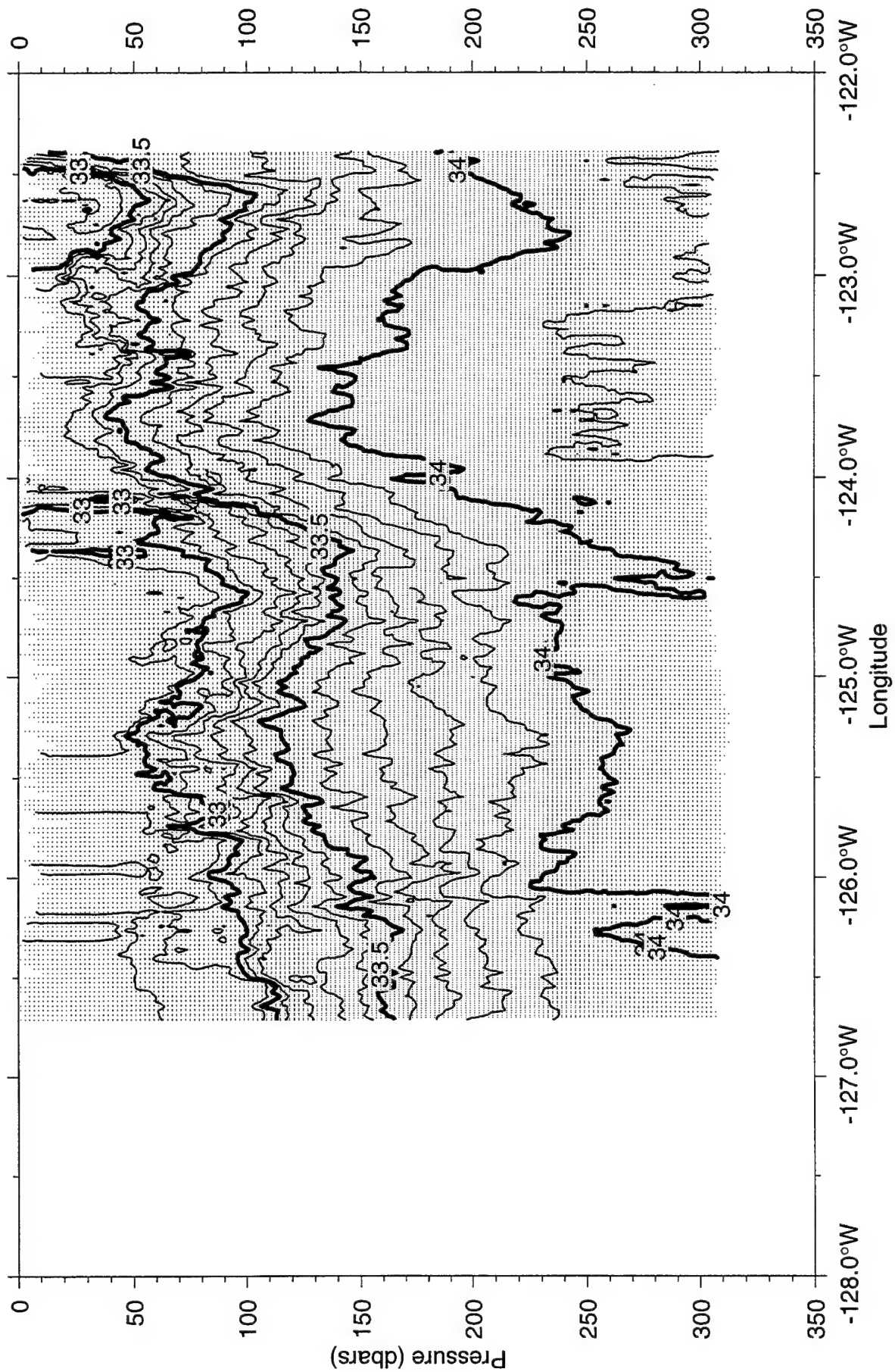
Large Scale Survey, Line 12, 36.75 °N, 6/24/93 - 6/26/93, Salinity



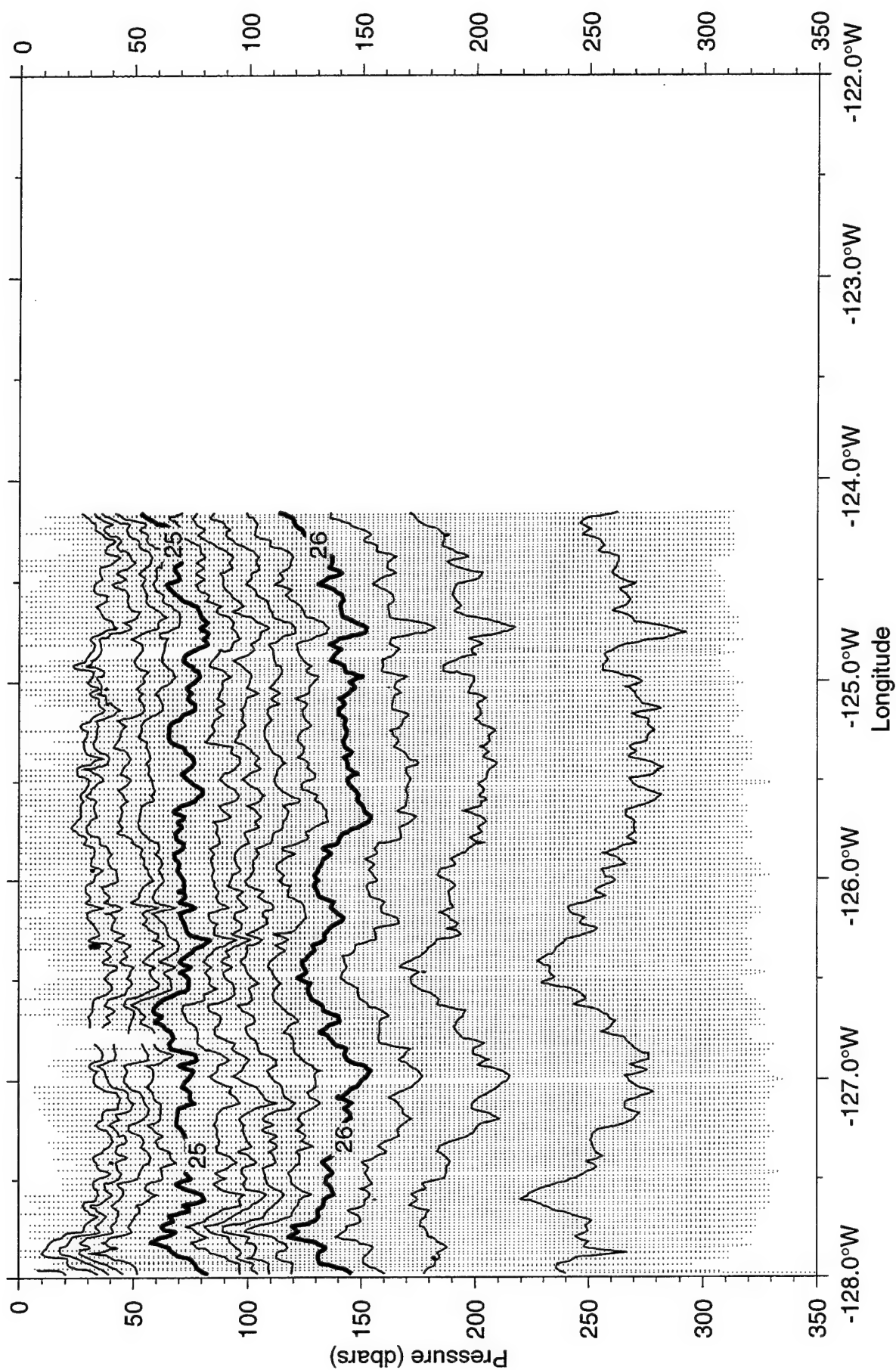
Large Scale Survey, Line 13, 36.50 °N, 6/26/93 - 6/27/93, Salinity



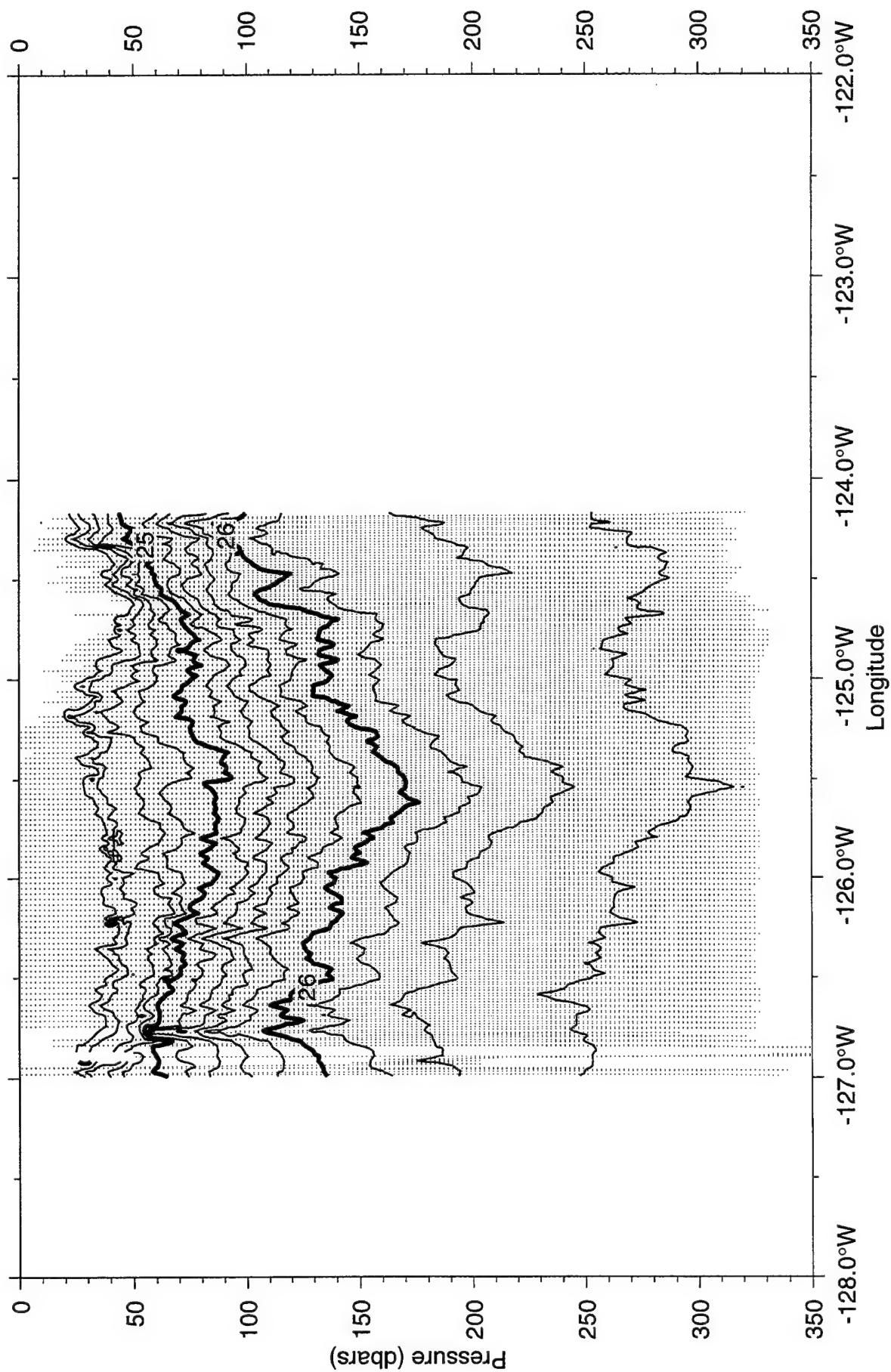
Large Scale Survey, Line 14, 36.25 °N, 6/27/93 - 6/28/93, Salinity



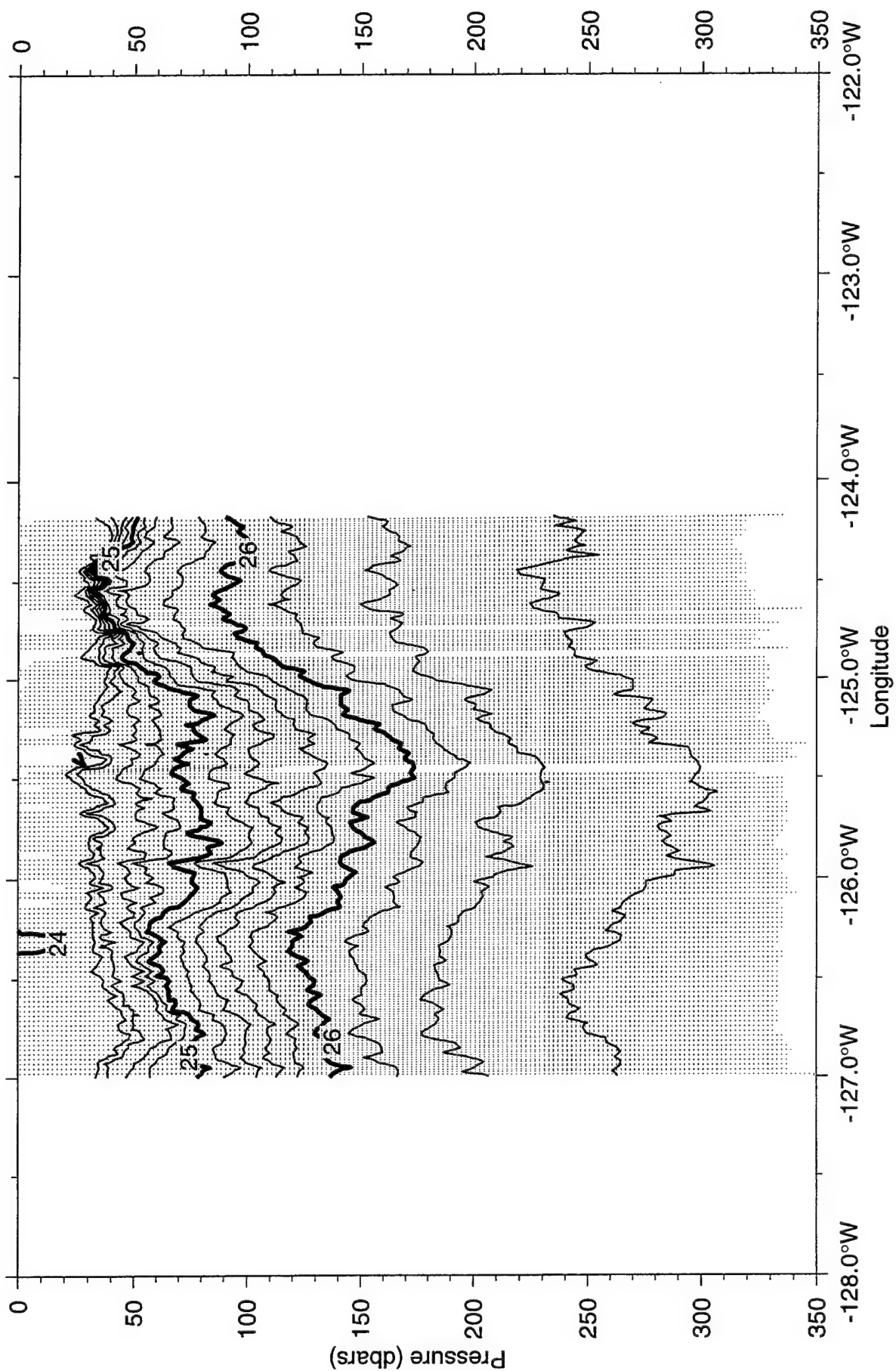
Large Scale Survey, Line 01, 39.50 °N, 6/7/93 - 6/8/93, Sigma-t (kg/m^3)



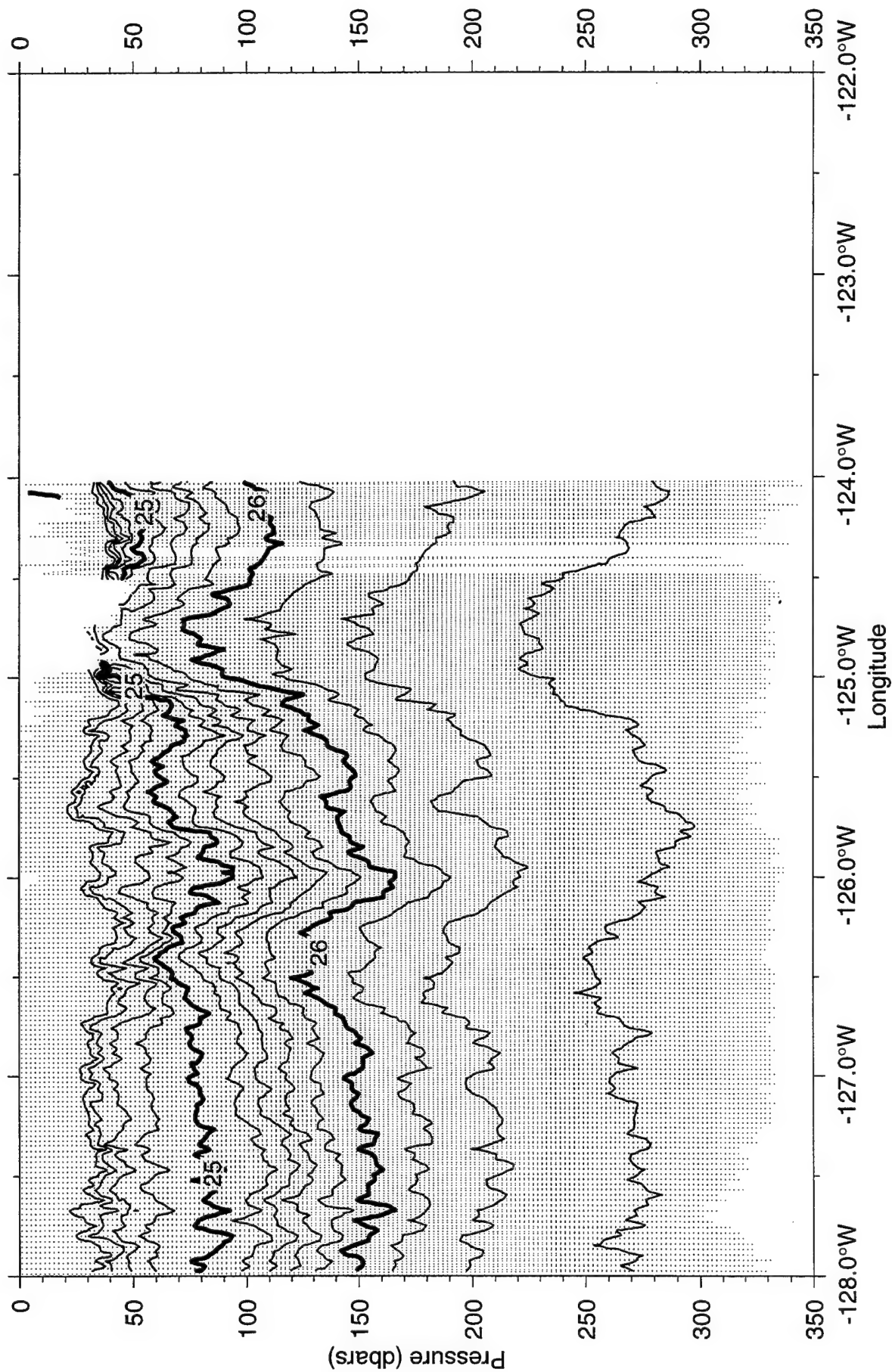
Large Scale Survey, Line 02, 39.25 °N, 6/8/93 - 6/9/93, Sigma-t (kg/m³)



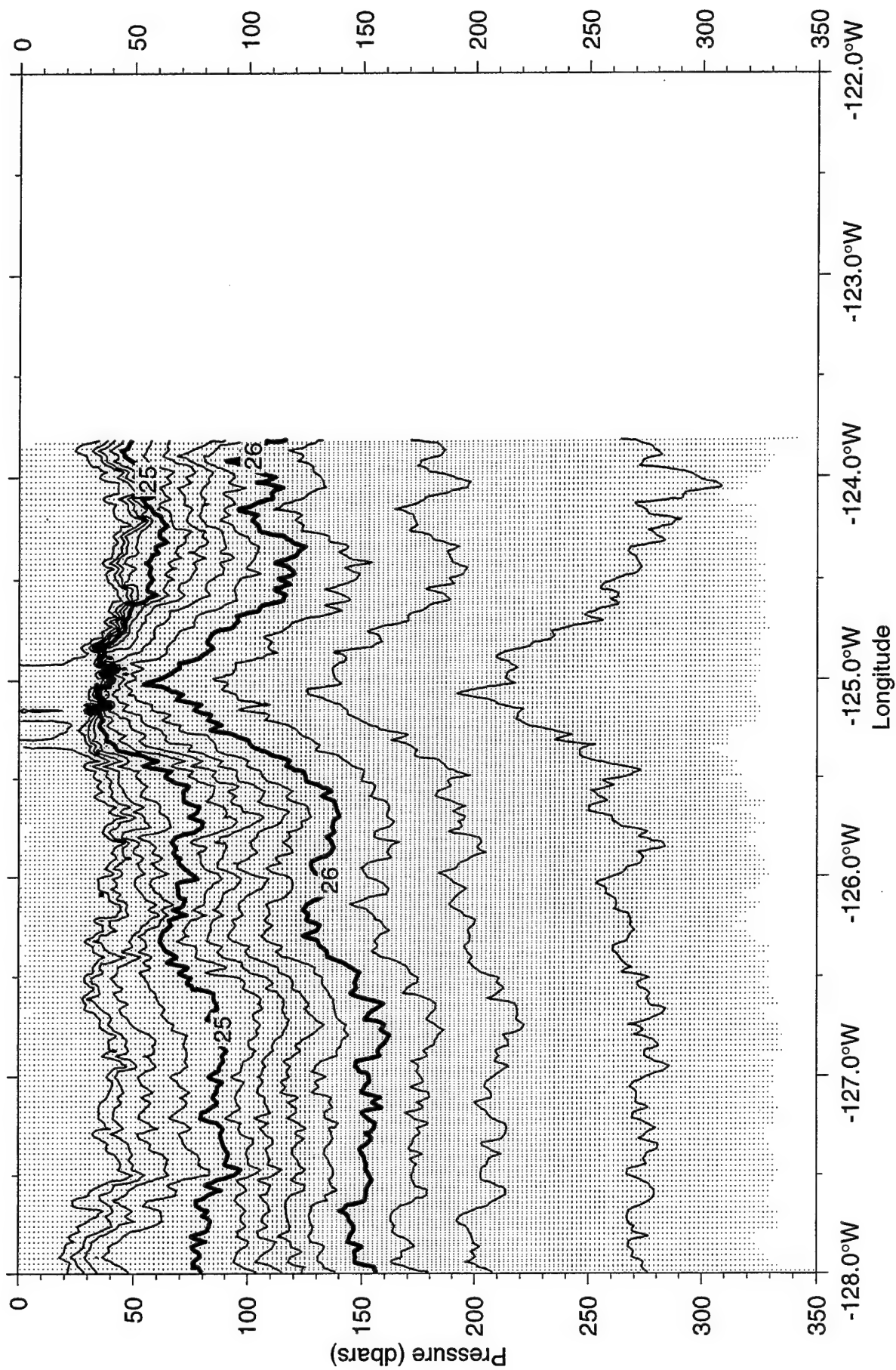
Large Scale Survey, Line 03, 39.00 °N, 6/10/93 - 6/10/93, Sigma-t (kg/m³)



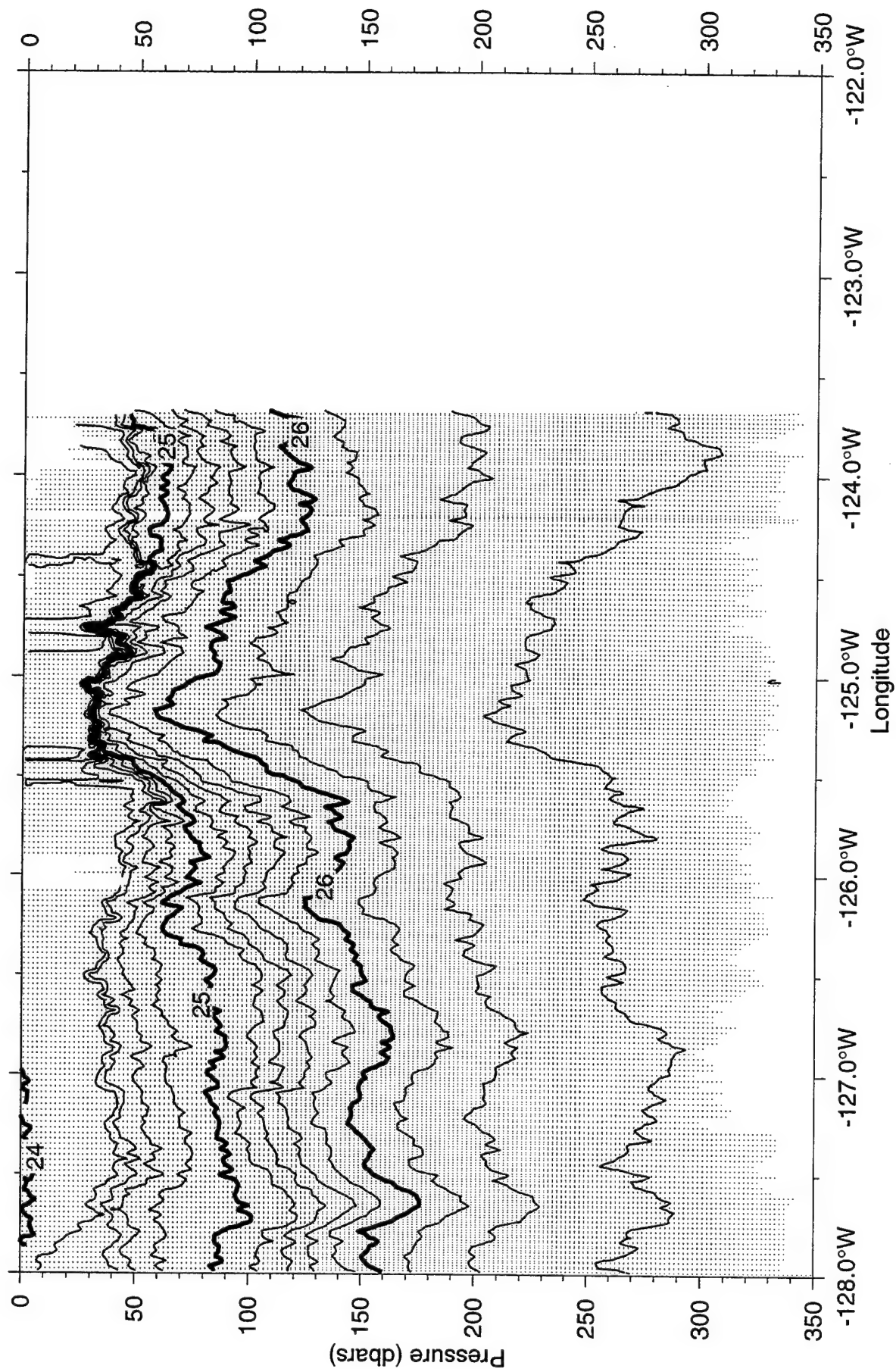
Large Scale Survey, Line 04, 38.75 °N, 6/10/93 - 6/11/93, Sigma-t (kg/m³)



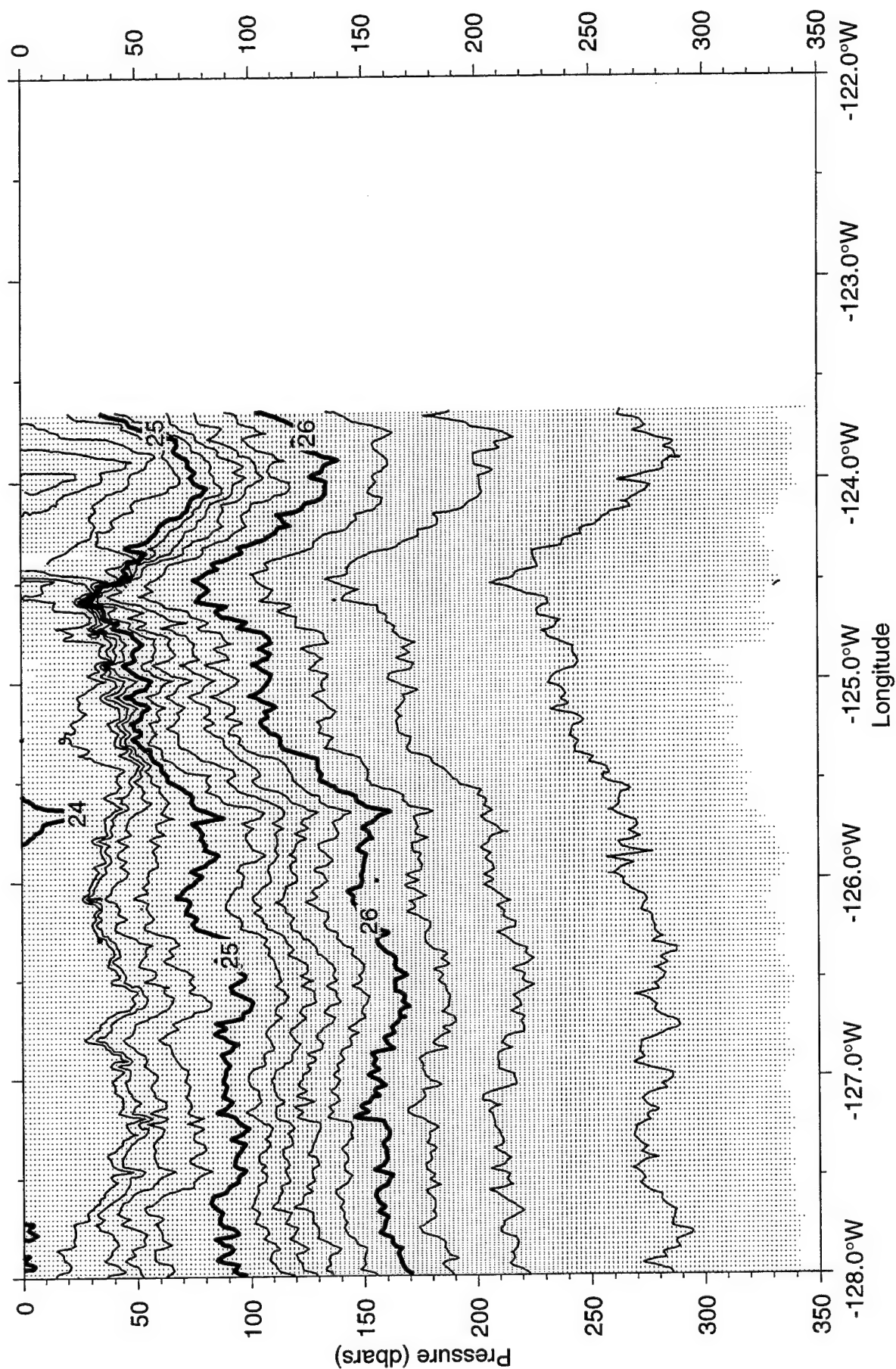
Large Scale Survey, Line 05, 38.50 °N, 6/11/93 - 6/13/93, Sigma-t (kg/m³)



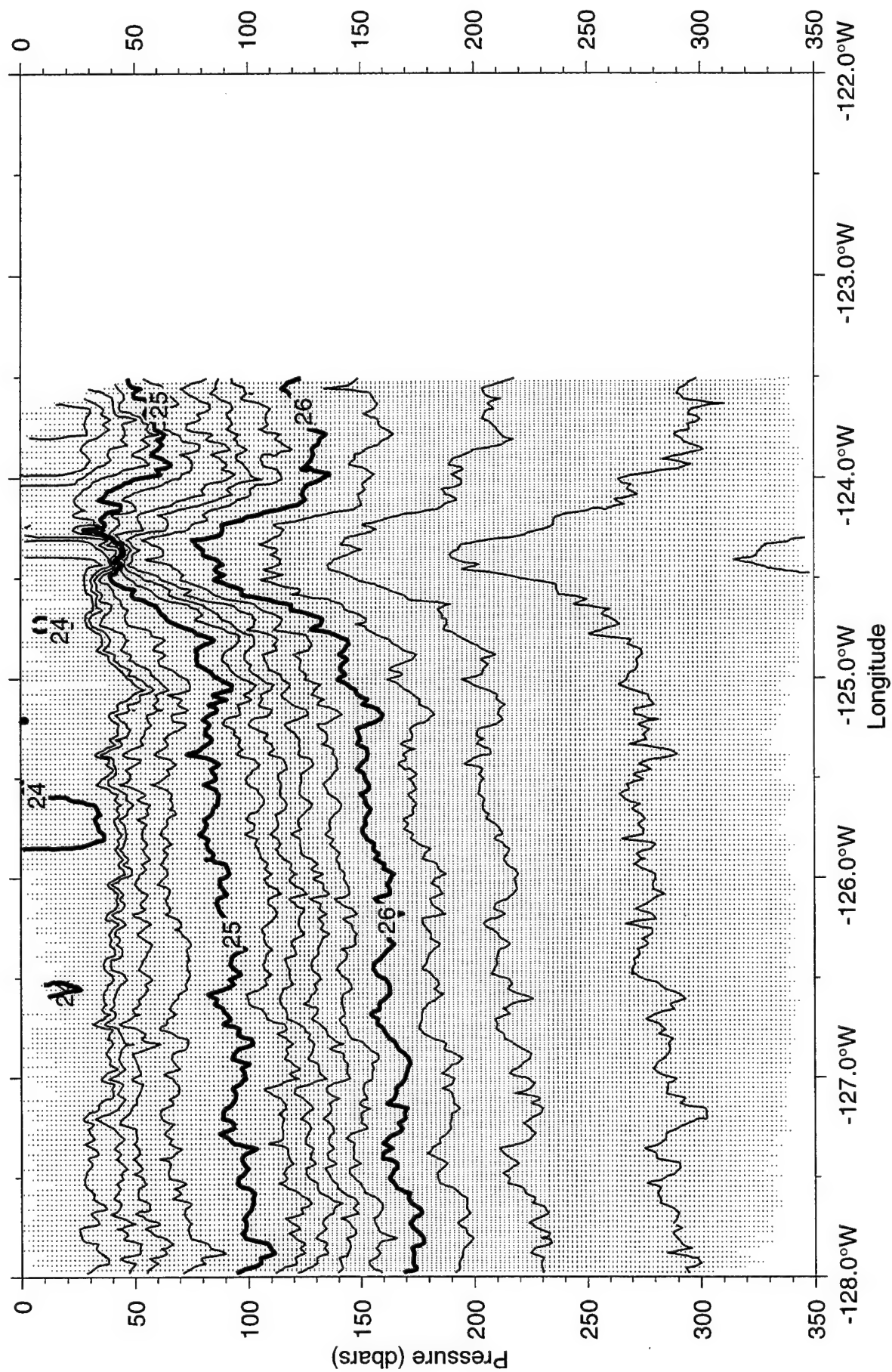
Large Scale Survey, Line 06, 38.25 °N, 6/13/93 - 6/14/93, Sigma-t (kg/m³)



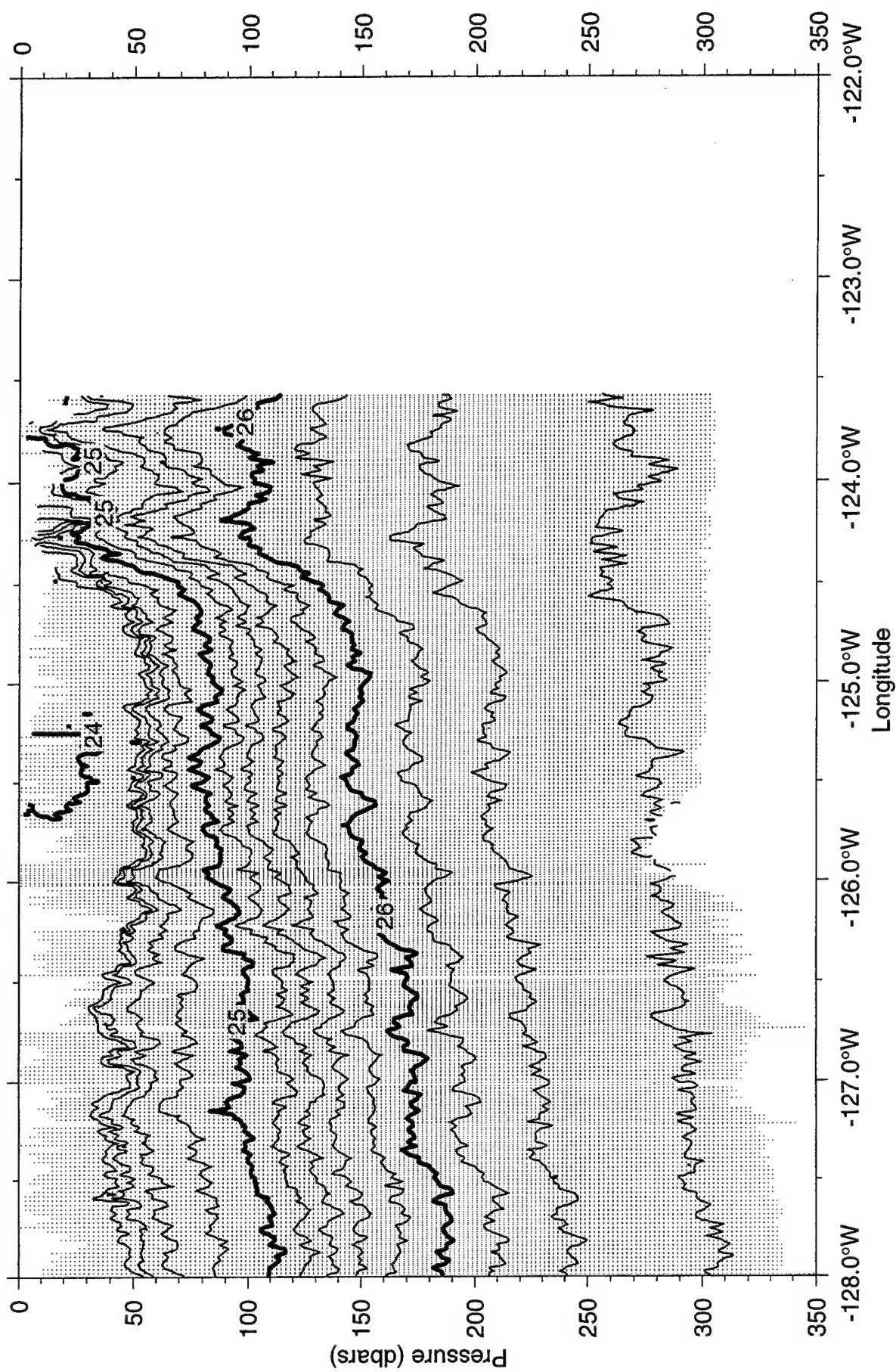
Large Scale Survey, Line 07, 38.00 °N, 6/14/93 - 6/15/93, Sigma-t (kg/m³)



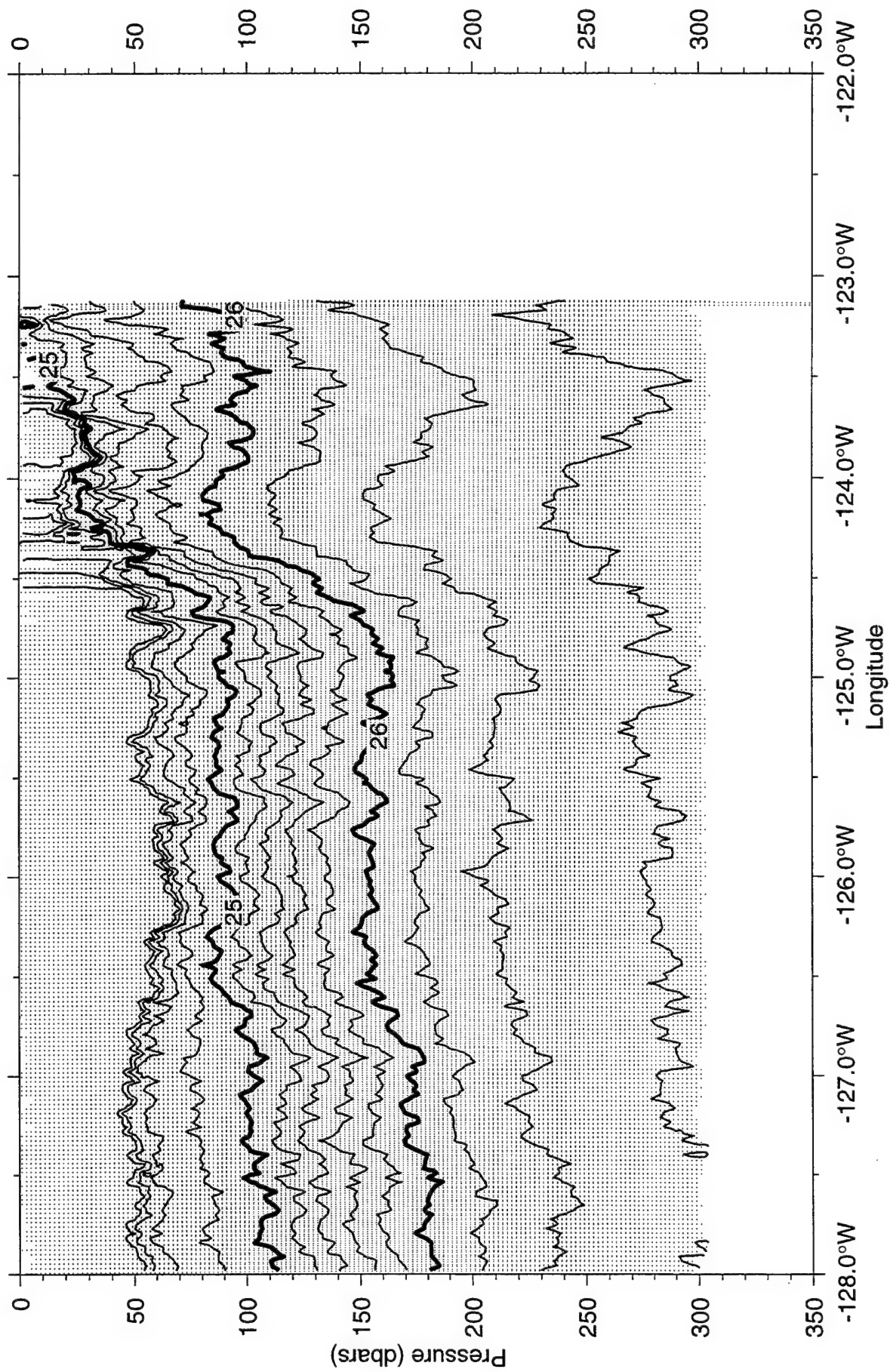
Large Scale Survey, Line 08, 37.75 °N, 6/15/93 - 6/16/93, Sigma-t (kg/m³)



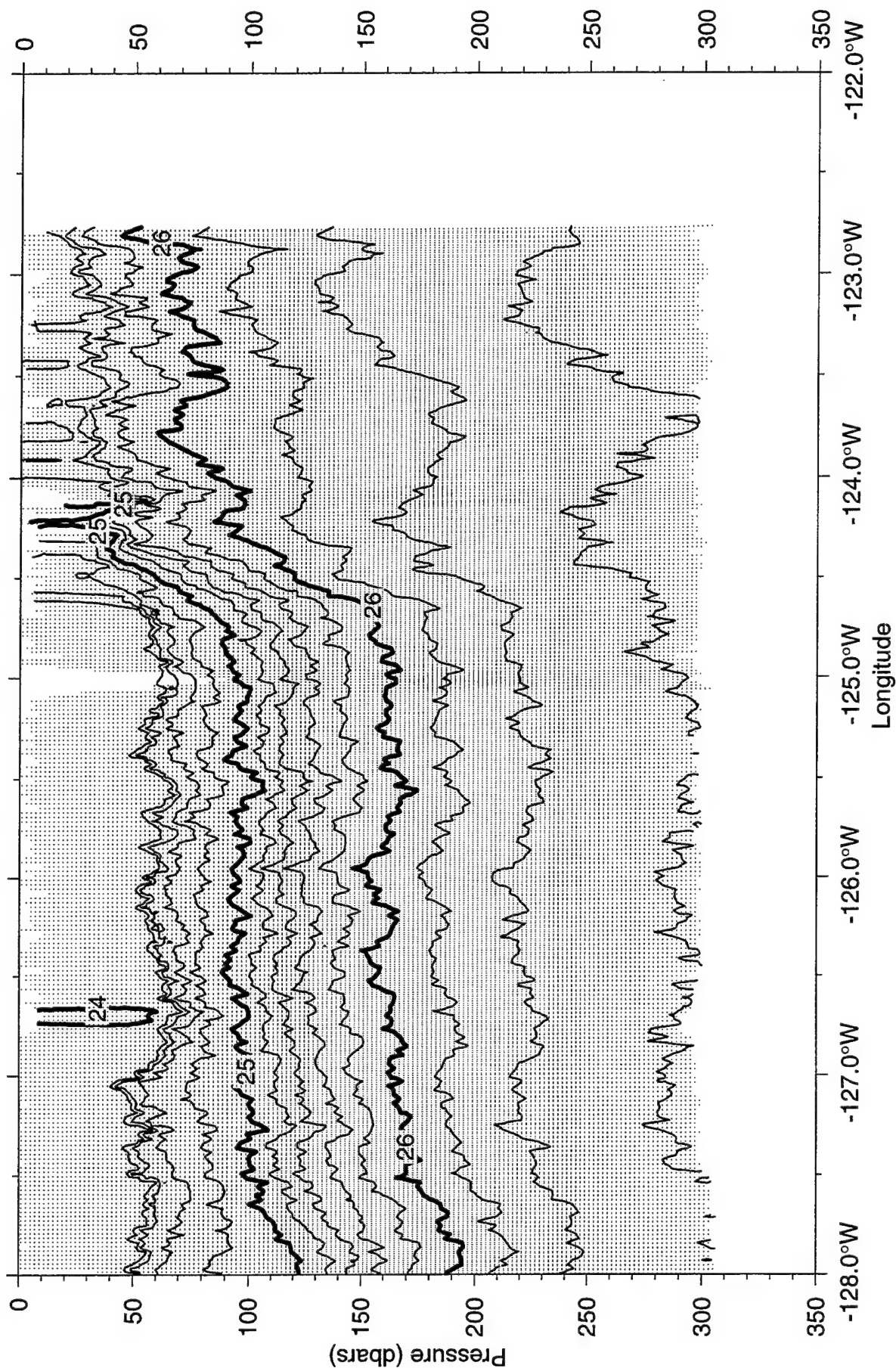
Large Scale Survey, Line 09, 37.50 °N, 6/16/93 - 6/19/93, Sigma-t (kg/m³)



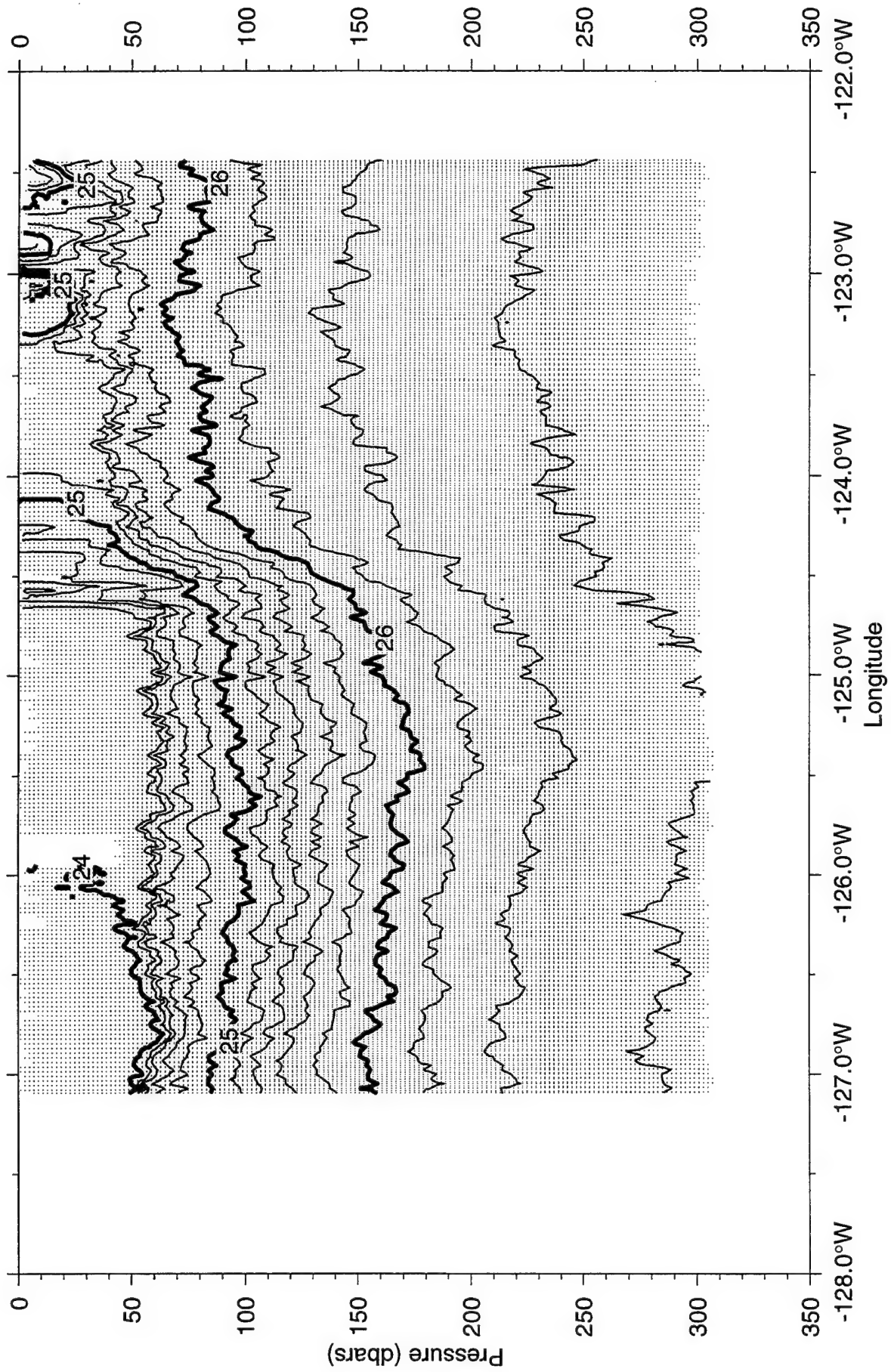
Large Scale Survey, Line 10, 37.25 °N, 6/21/93 - 6/23/93, Sigma-t (kg/m³)



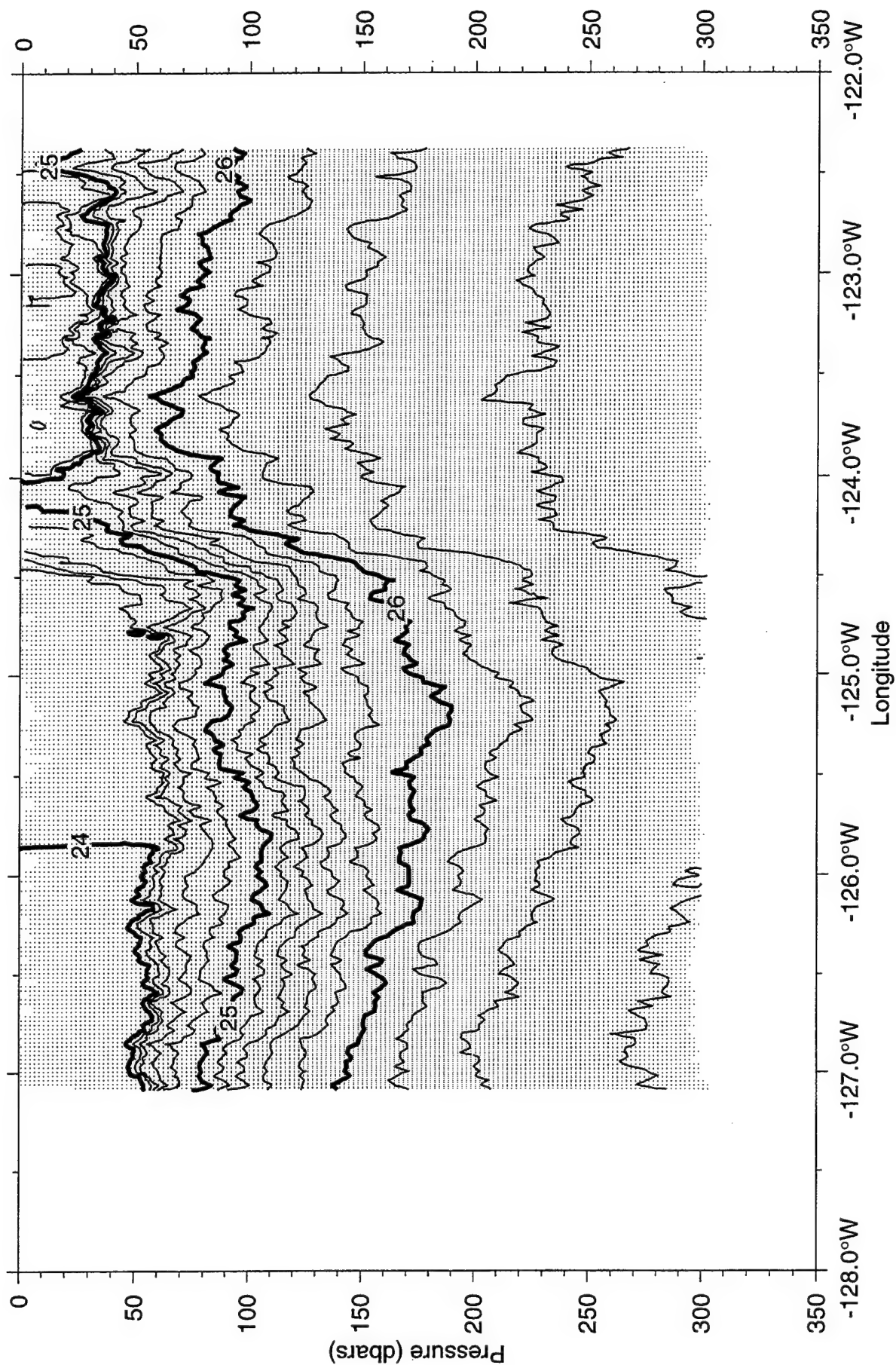
Large Scale Survey, Line 11, 37.01 °N, 6/23/93 - 6/24/93, Sigma-t (kg/m³)



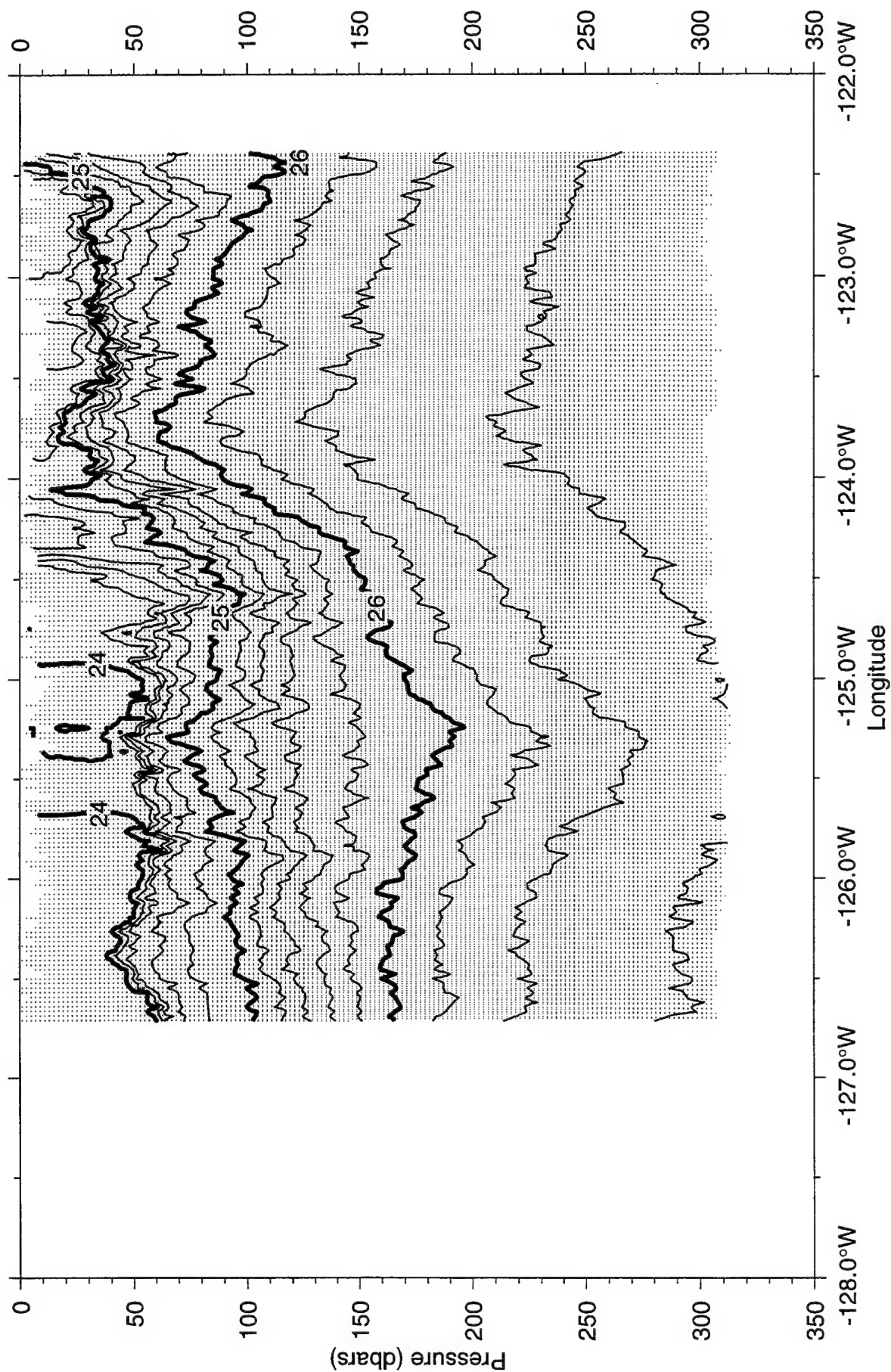
Large Scale Survey, Line 12, 36.75 °N, 6/24/93 - 6/26/93, Sigma-t (kg/m³)



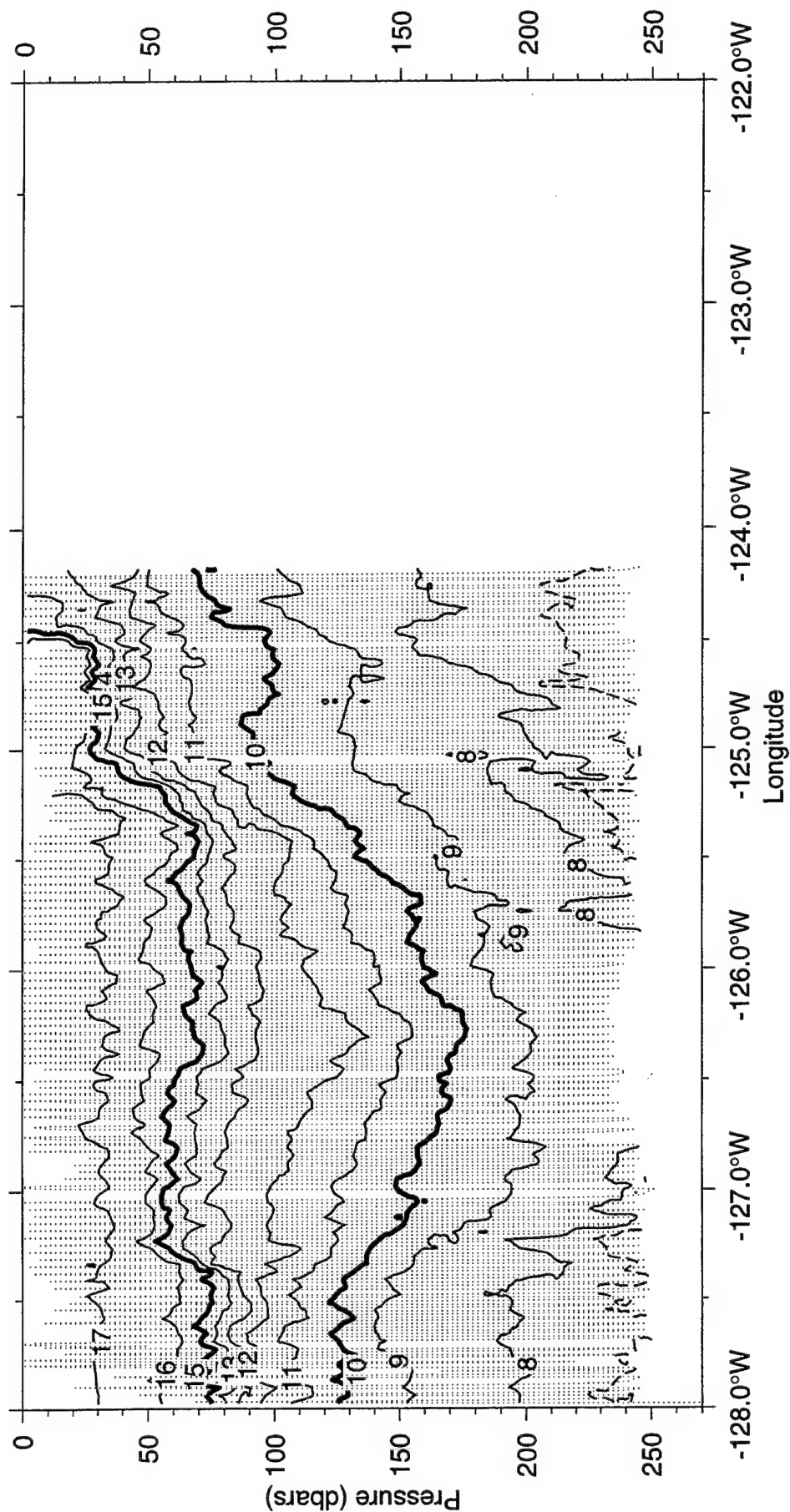
Large Scale Survey, Line 13, 36.50 °N, 6/26/93 - 6/27/93, Sigma-t (kg/m³)



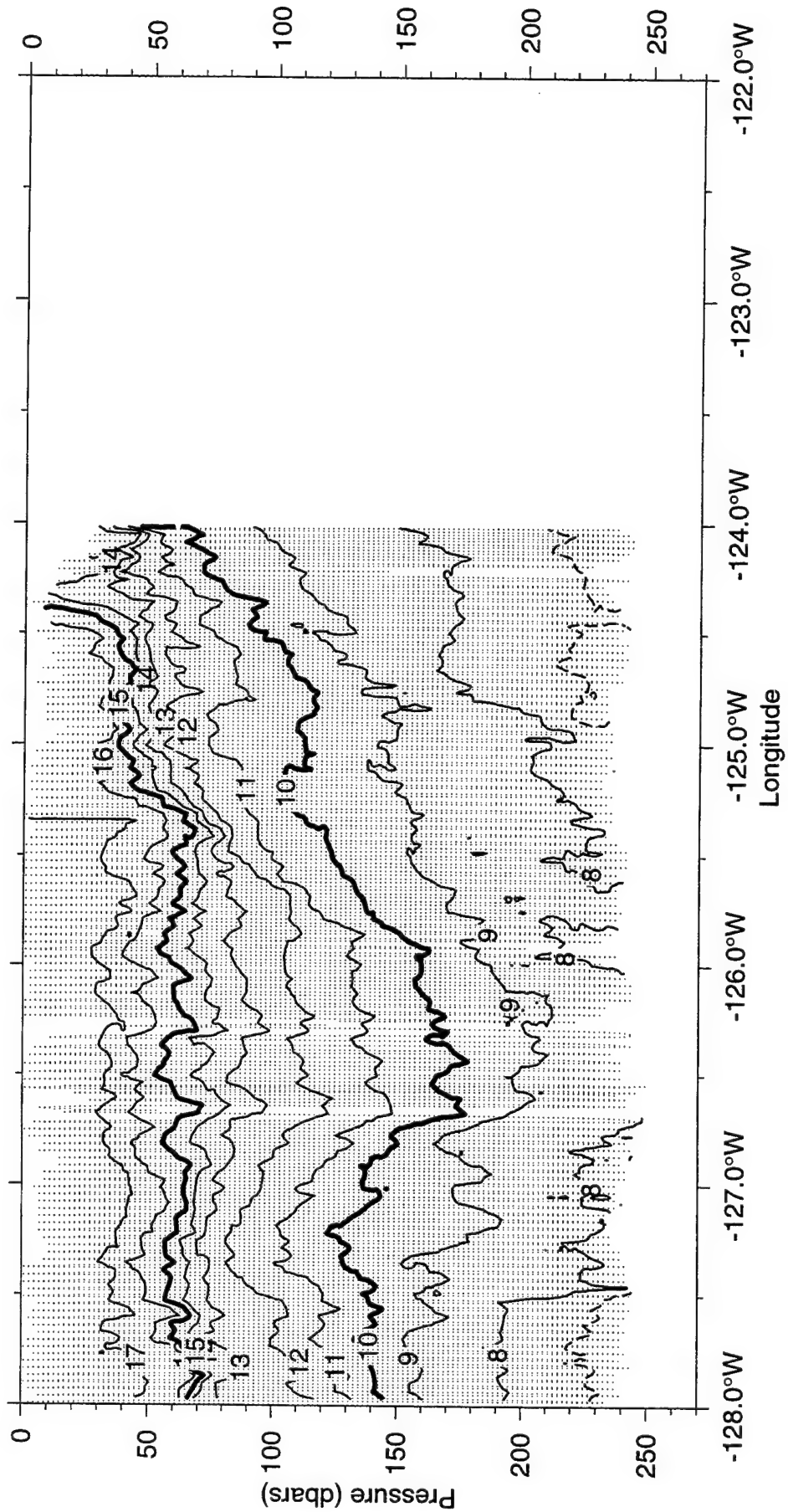
Large Scale Survey, Line 14, 36.25 °N, 6/27/93 - 6/28/93, Sigma-t (kg/m³)



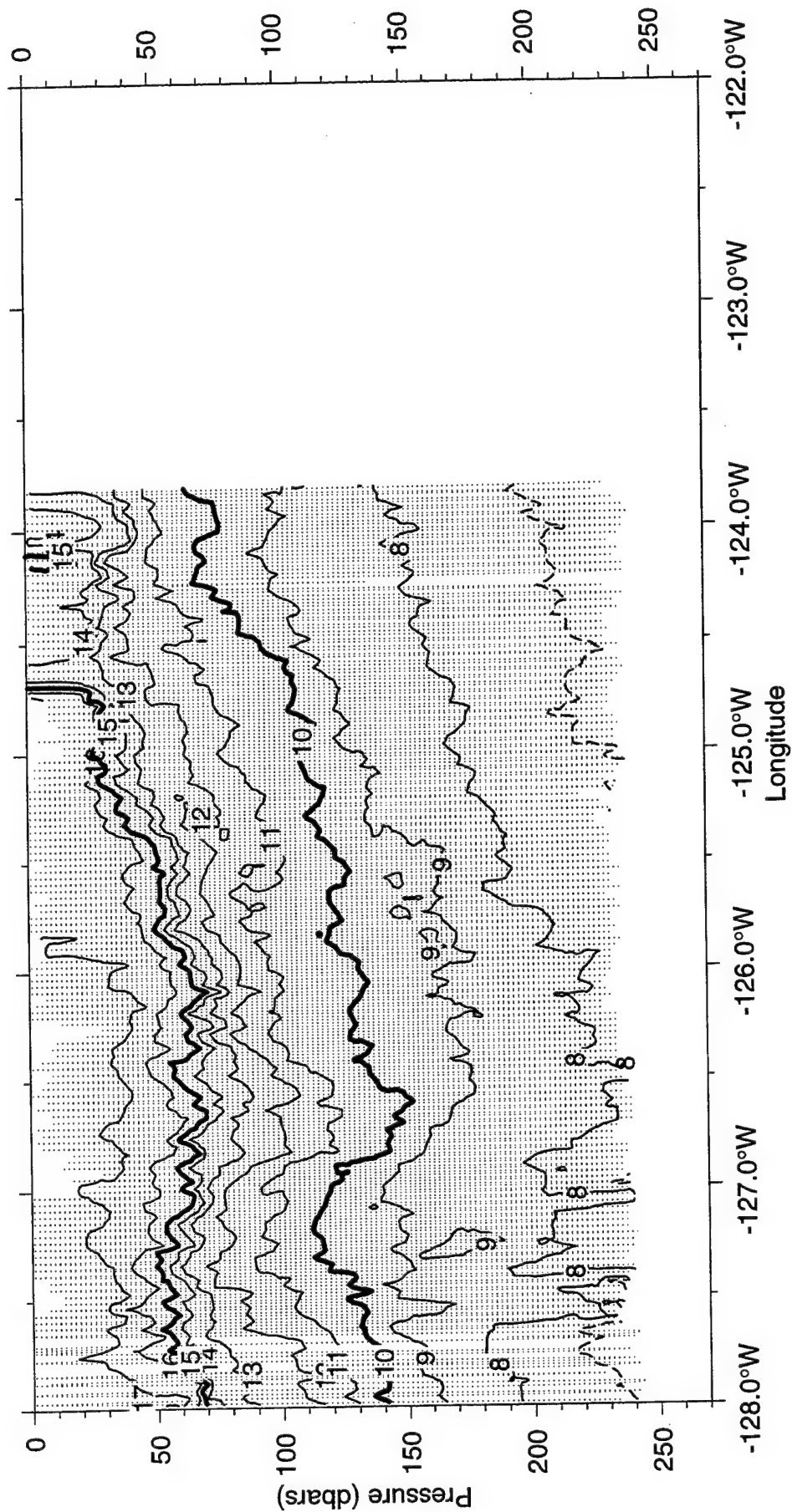
Large Scale Survey, Line 03, 39.00 °N, 8/16/93 - 8/17/93, Temperature (°C)



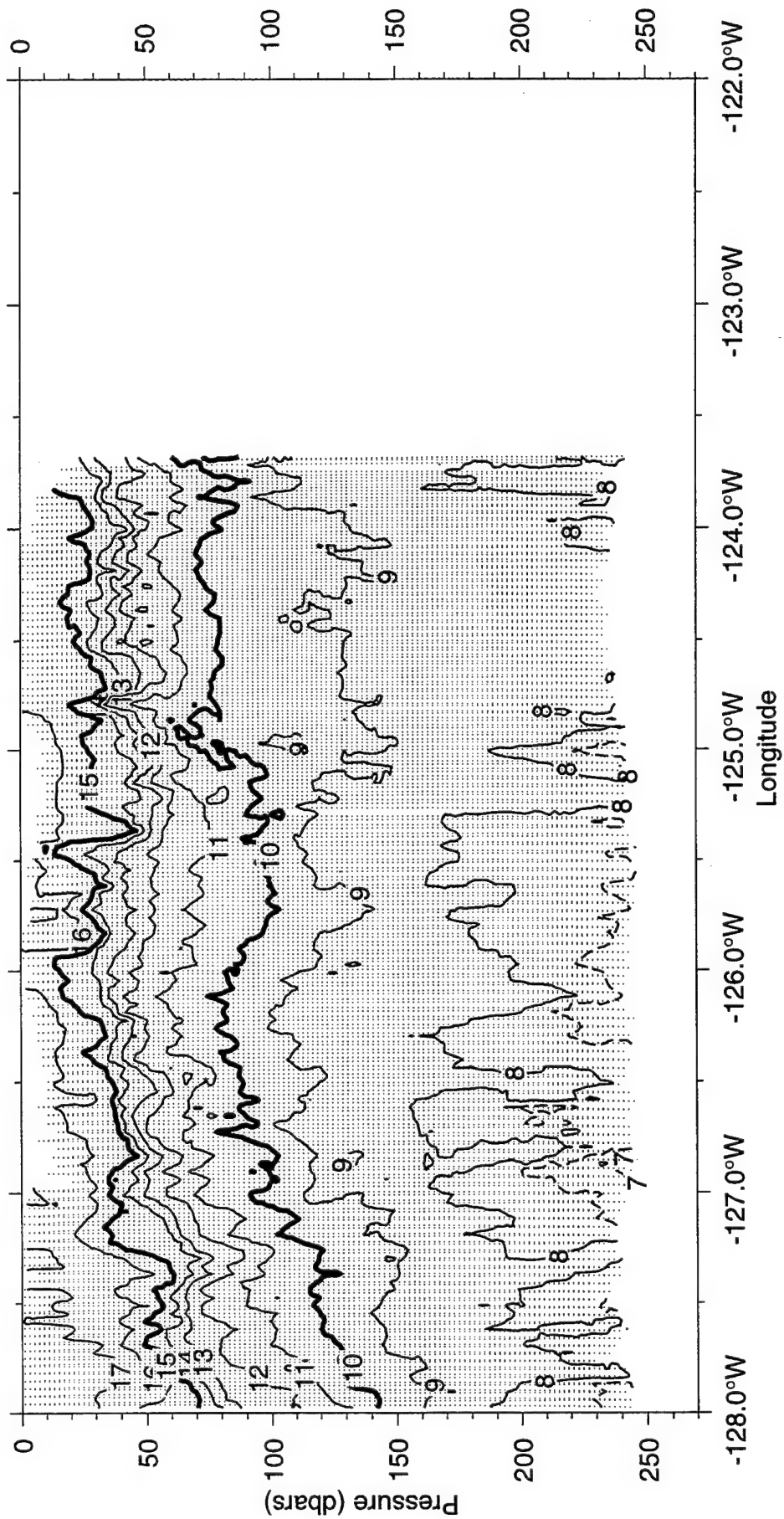
Large Scale Survey, Line 04, 38.75°N, 8/17/93 - 8/18/93, Temperature (°C)



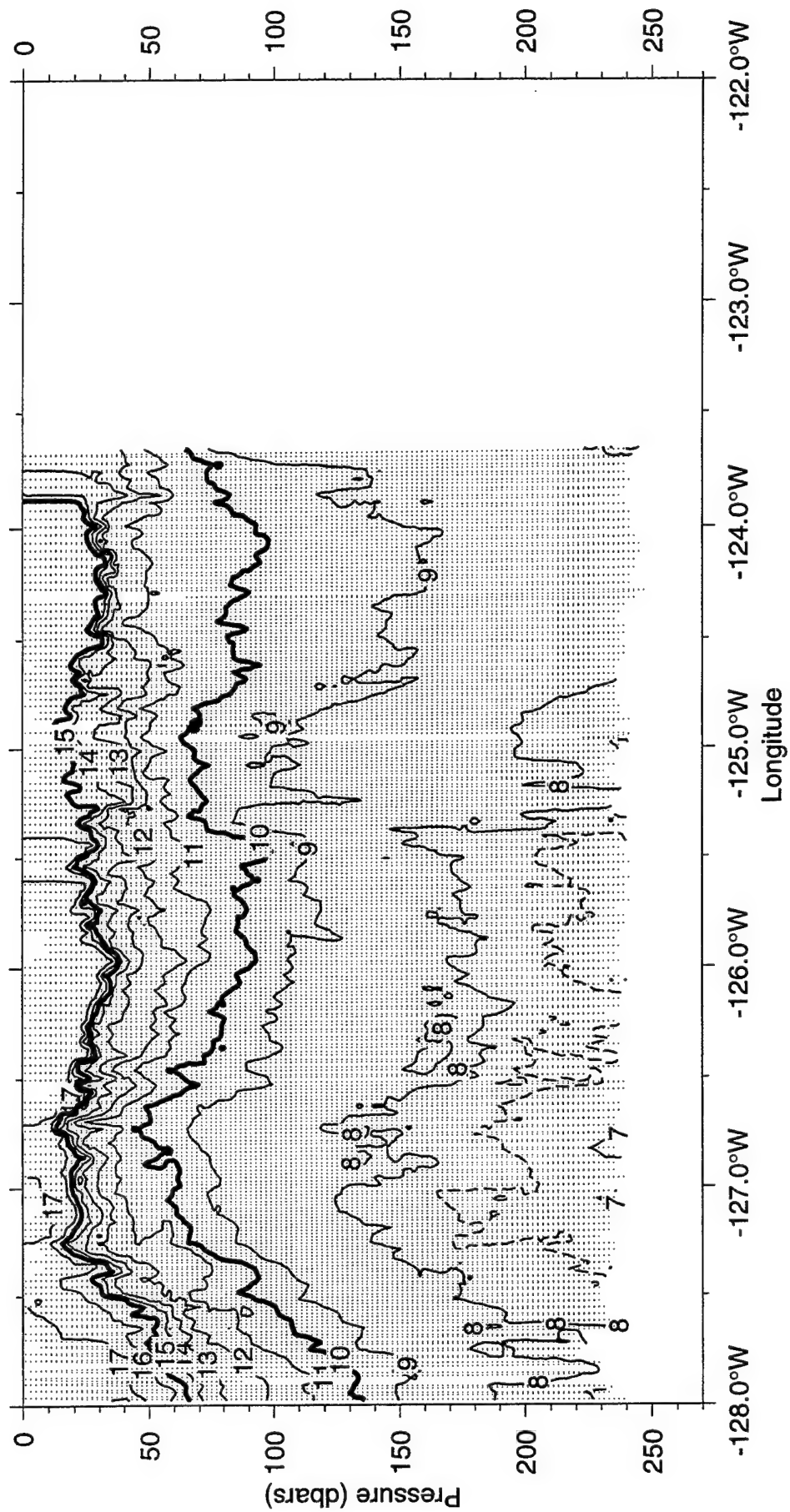
Large Scale Survey, Line 05, 38.50 °N, 8/18/93 - 8/19/93, Temperature (°C)



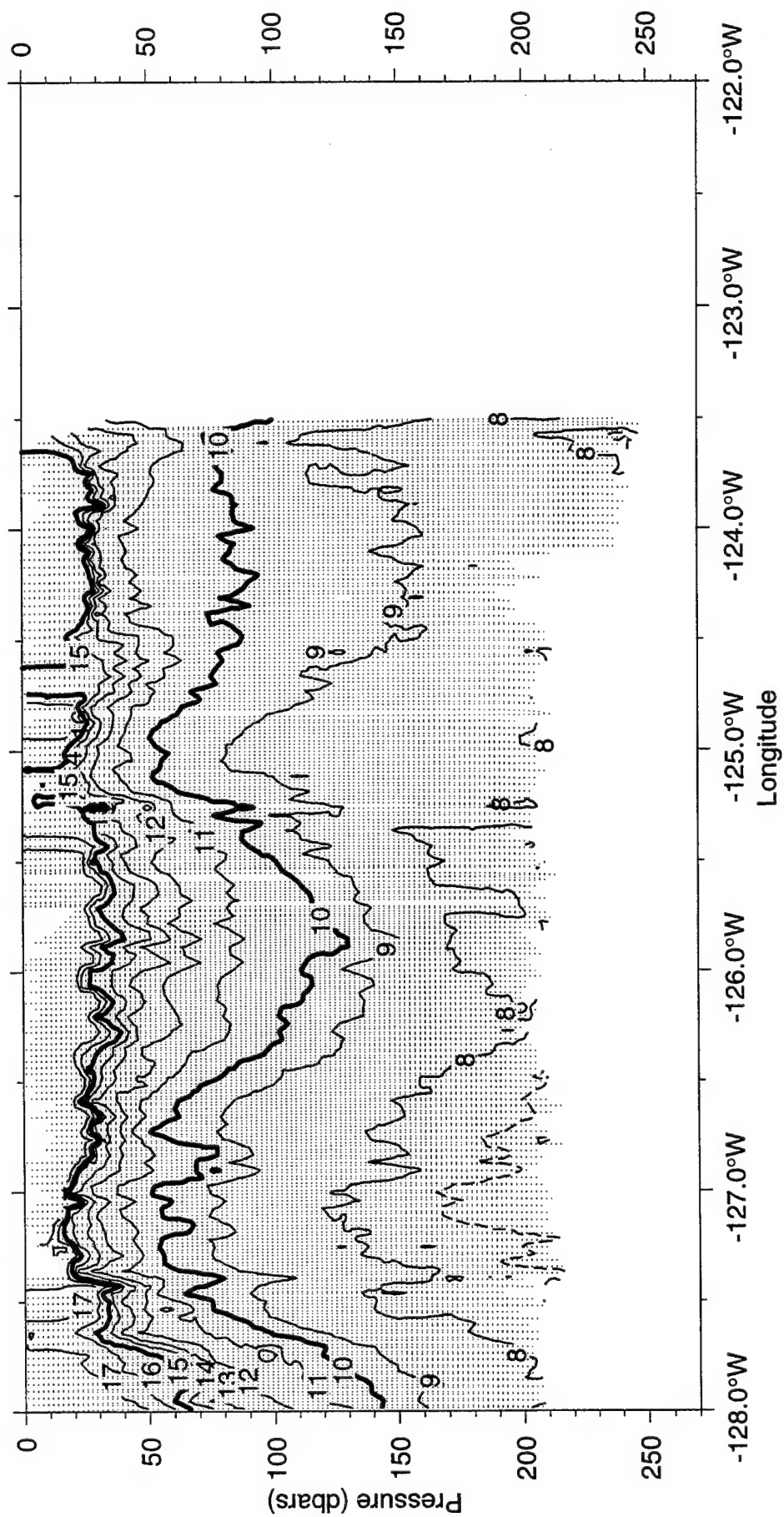
Large Scale Survey, Line 06, 38.25 °N, 8/19/93 - 8/20/93, Temperature (°C)



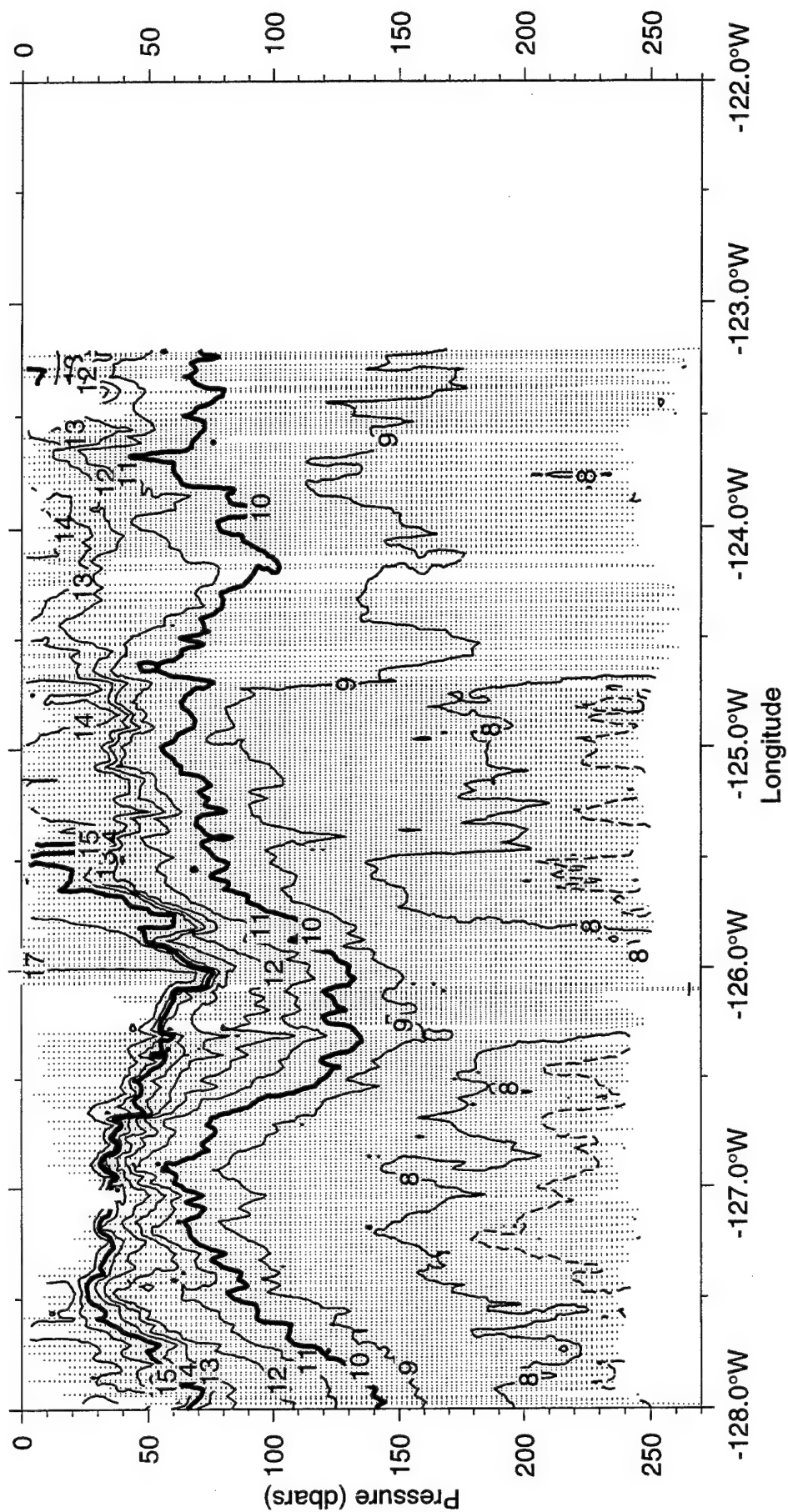
Large Scale Survey, Line 07, 38.00 °N, 8/20/93 - 8/22/93, Temperature (°C)



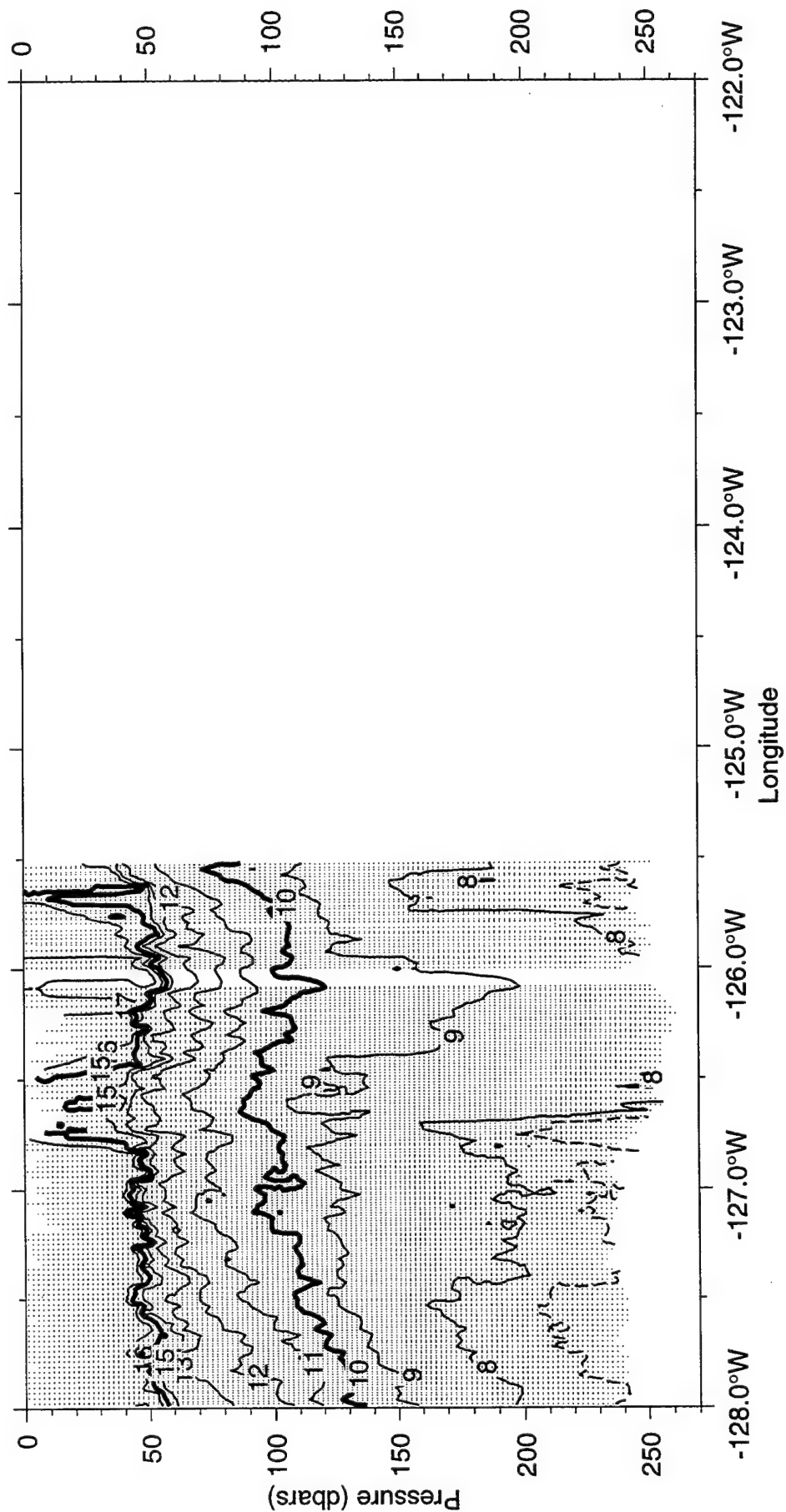
Large Scale Survey, Line 08, 37.75 °N, 8/22/93 - 8/23/93, Temperature (°C)



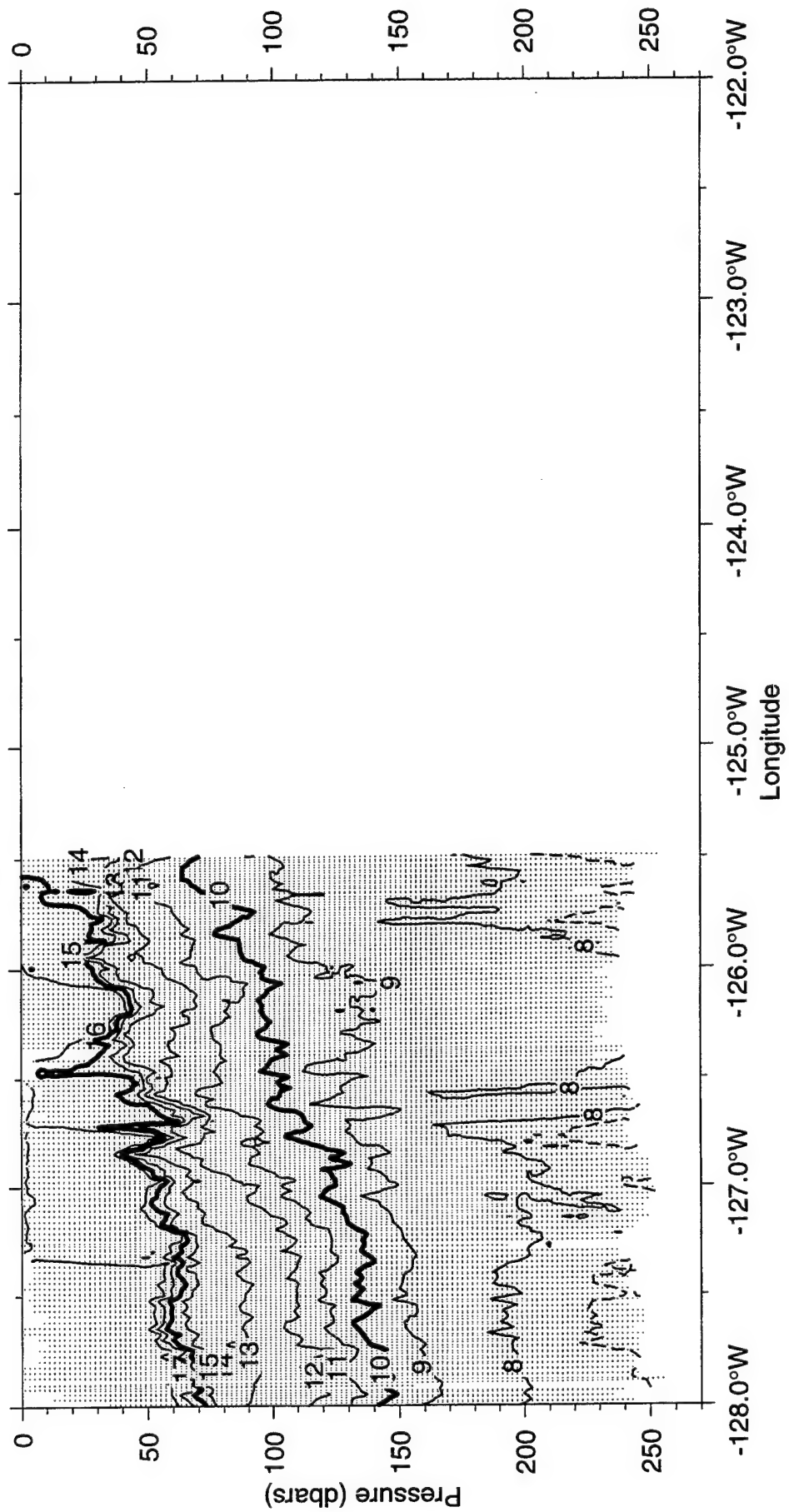
Large Scale Survey, Line 09, 37.50 °N, 8/24/93 - 8/31/93, Temperature (°C)



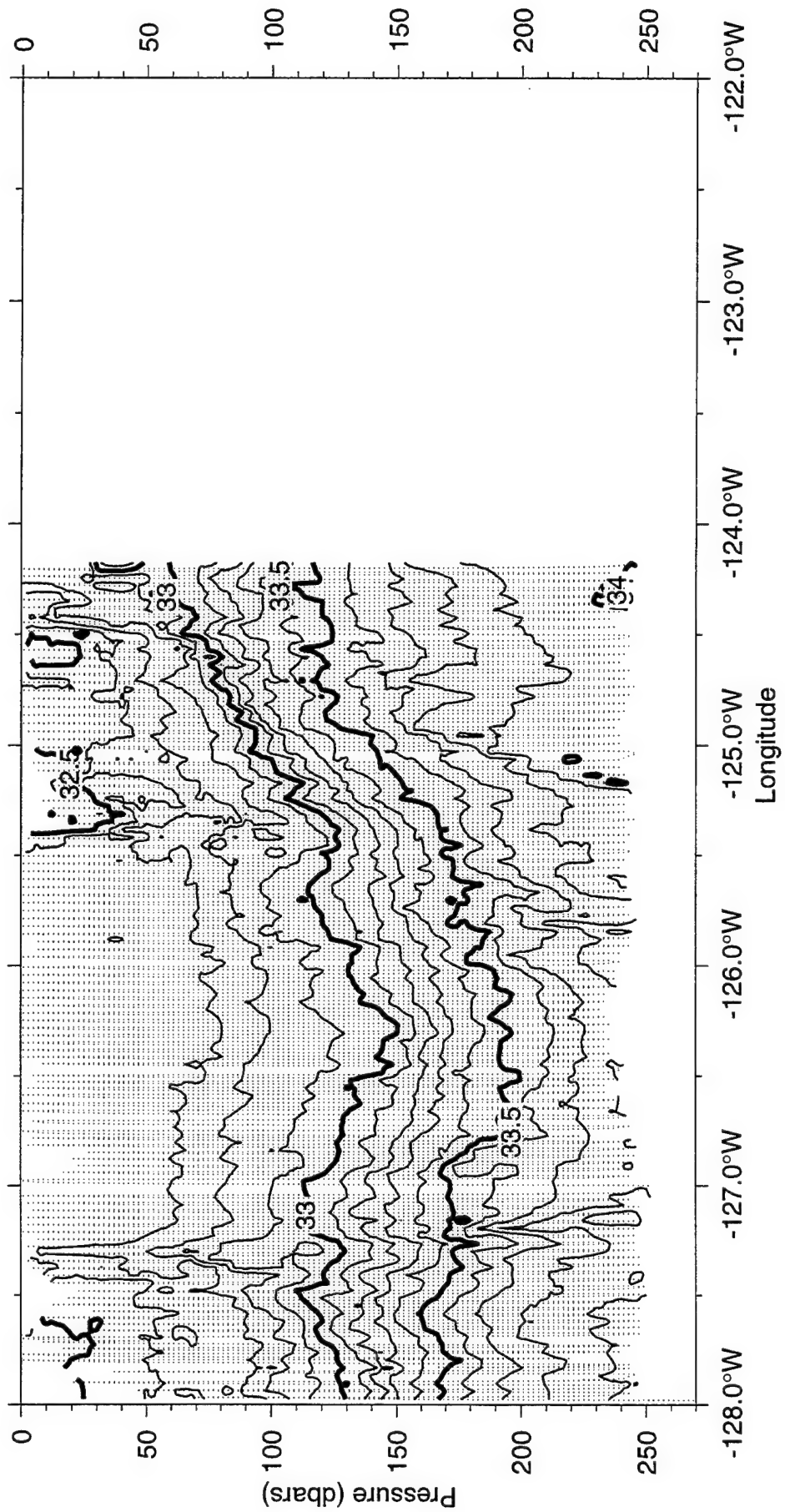
Large Scale Survey, Line 10, 37.25 °N, 8/31/93 - 9/1/93, Temperature (°C)



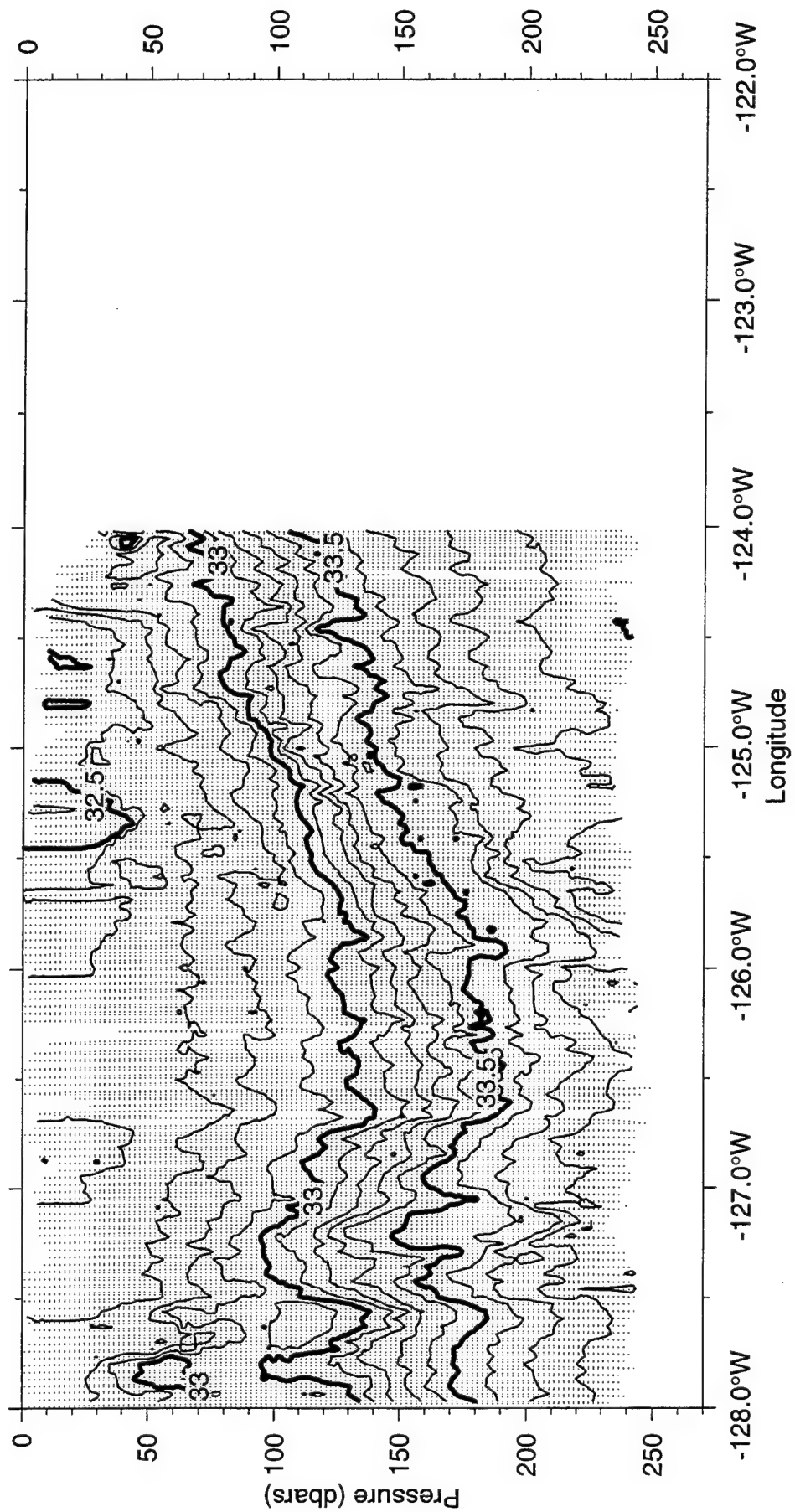
Large Scale Survey, Line 11, 37.00 °N, 8/31/93 - 9/1/93, Temperature (°C)



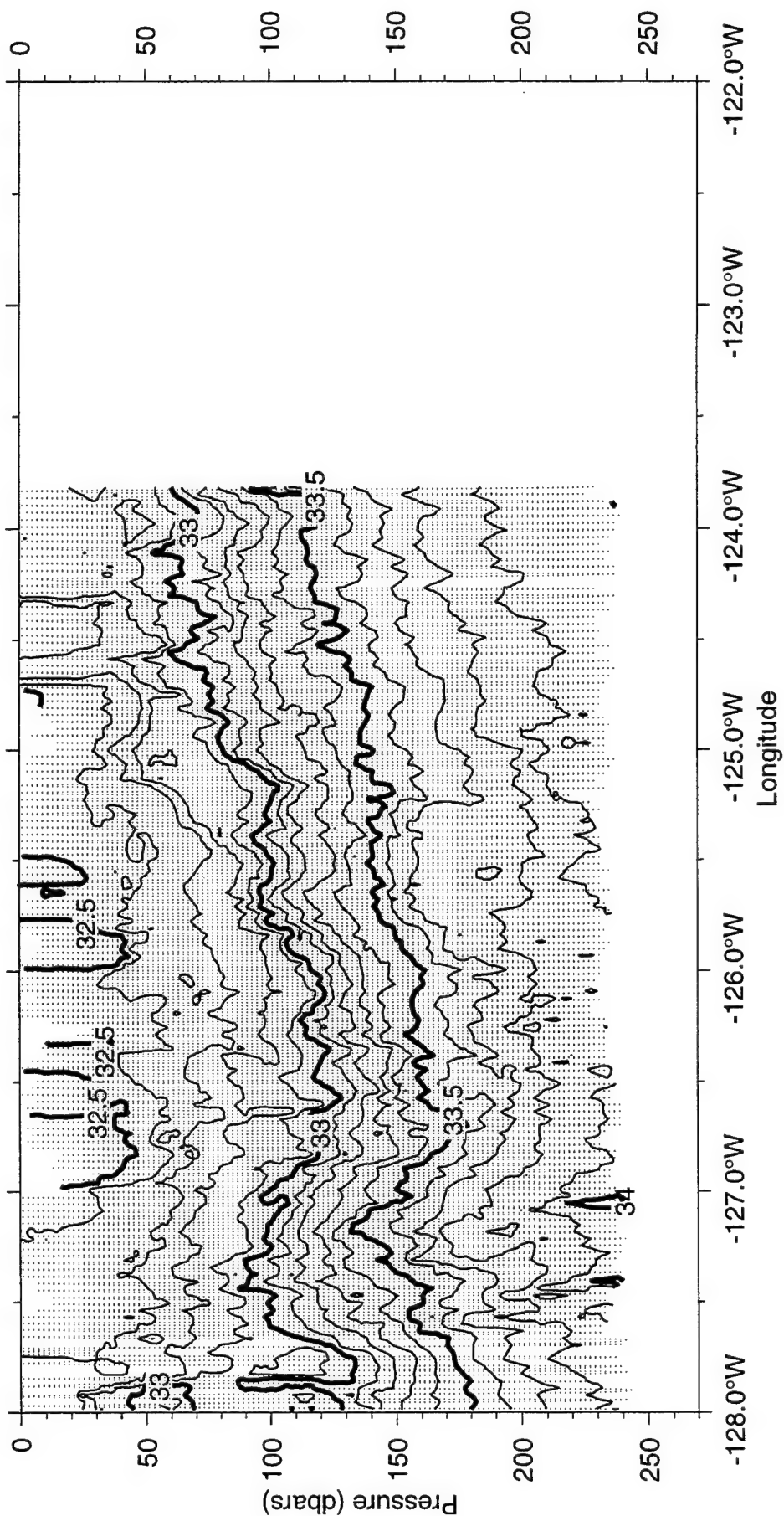
Large Scale Survey, Line 03, 39.00 °N, 8/16/93 - 8/17/93, Salinity



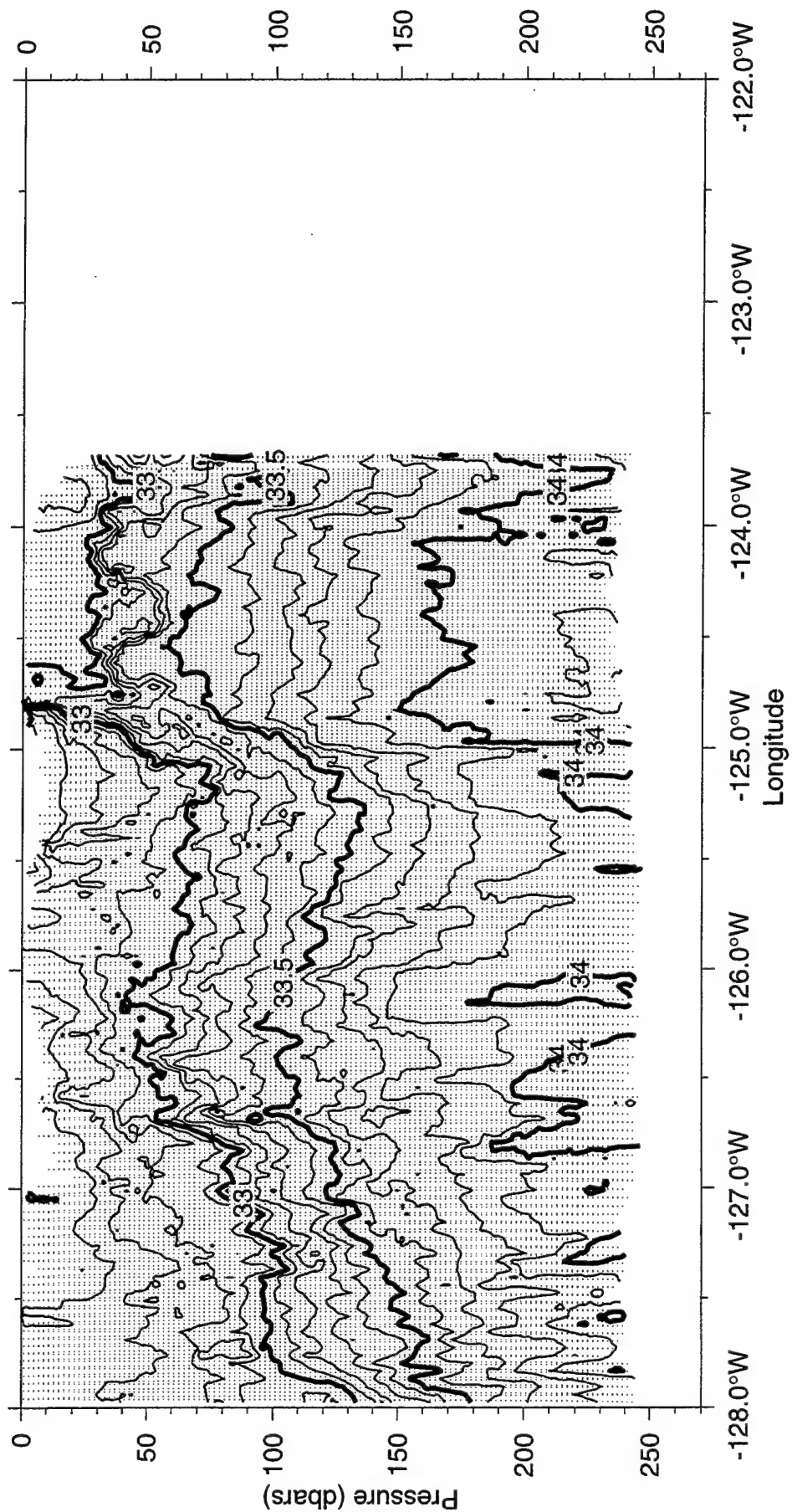
Large Scale Survey, Line 04, 38.75 °N, 8/17/93 - 8/18/93, Salinity



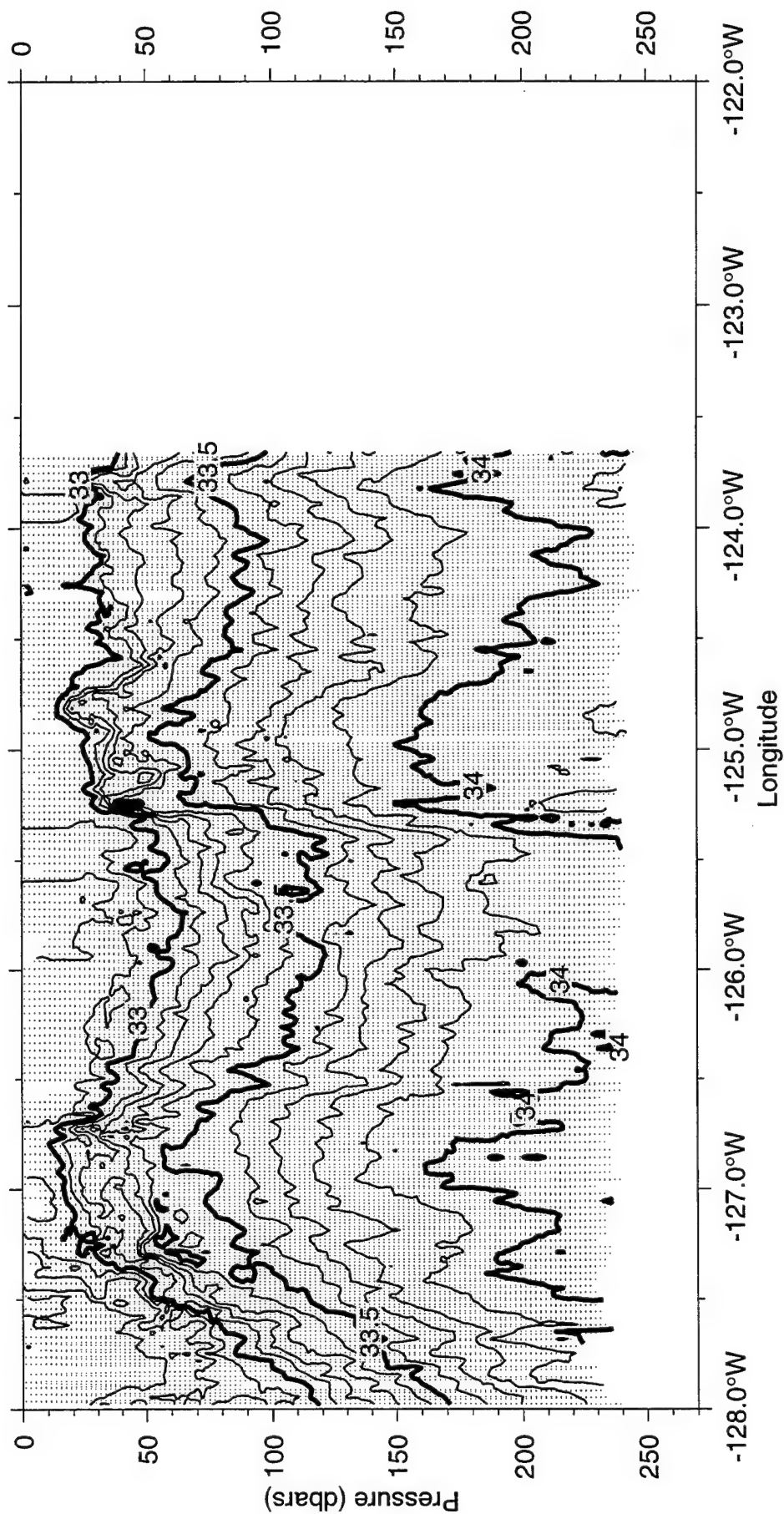
Large Scale Survey, Line 05, 38.50 °N, 8/18/93 - 8/19/93, Salinity



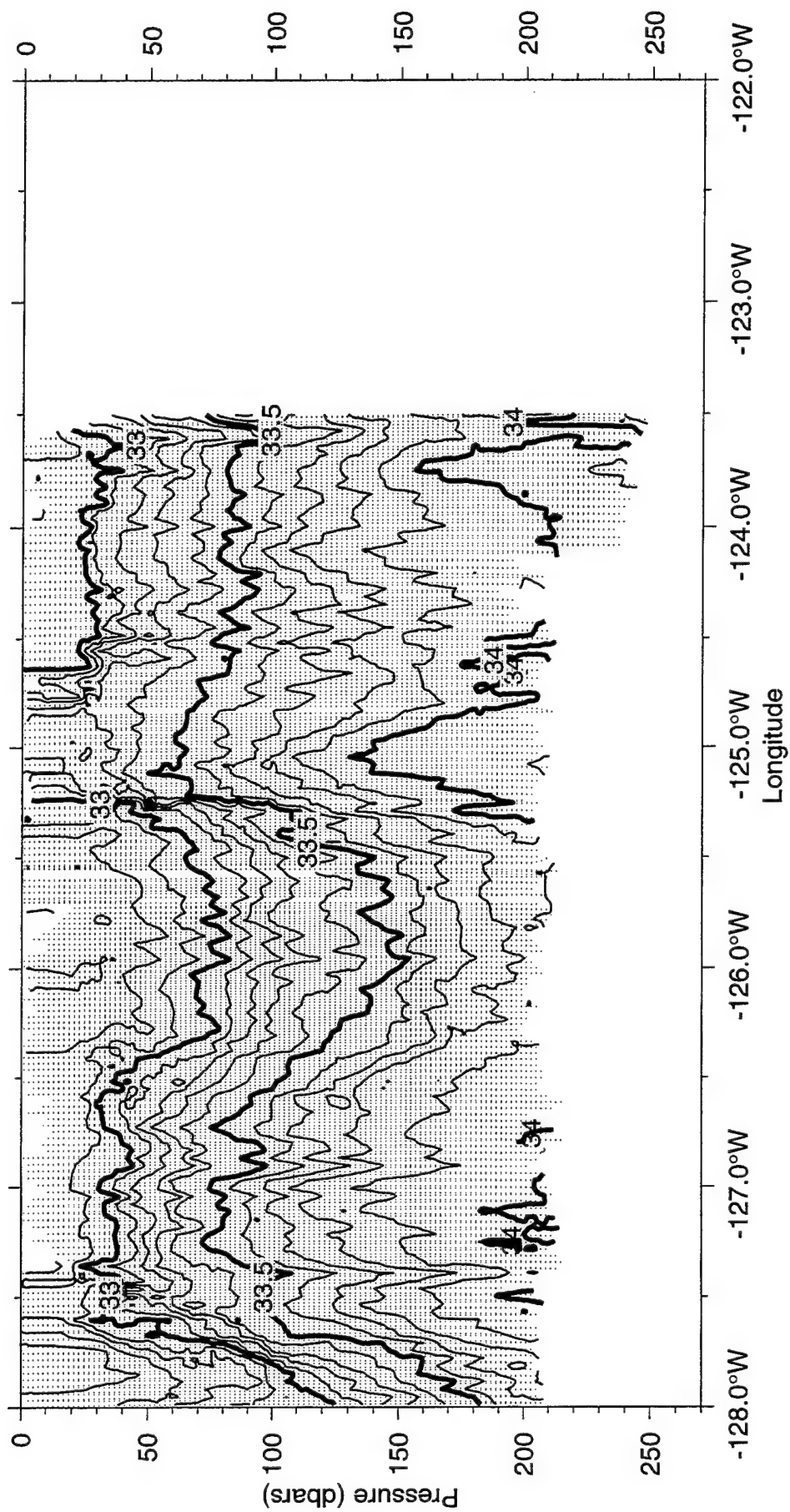
Large Scale Survey, Line 06, 38.25 °N, 8/19/93 - 8/20/93, Salinity



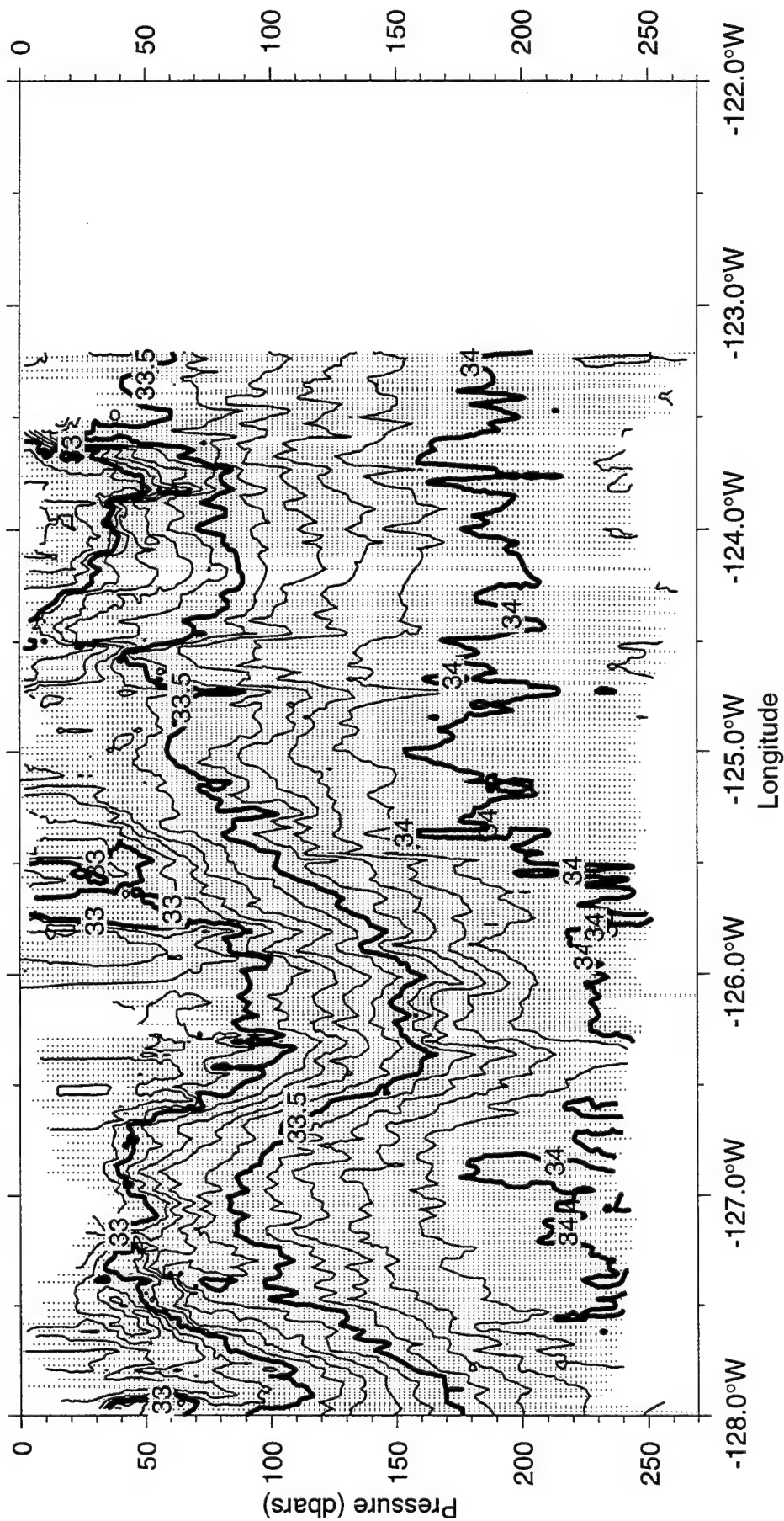
Large Scale Survey, Line 07, 38.00 °N, 8/20/93 - 8/22/93, Salinity



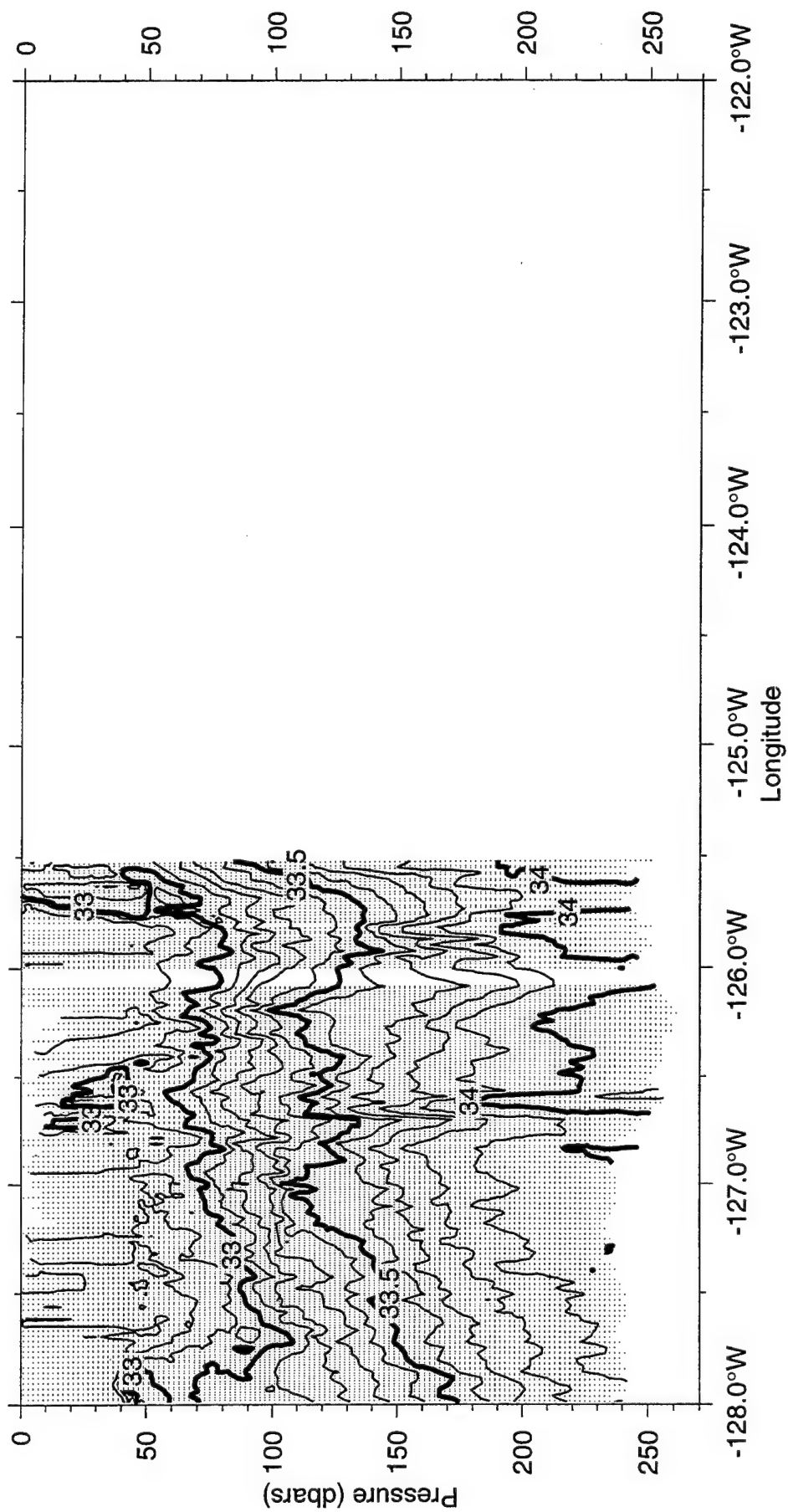
Large Scale Survey, Line 08, 37.75 °N, 8/22/93 - 8/23/93, Salinity



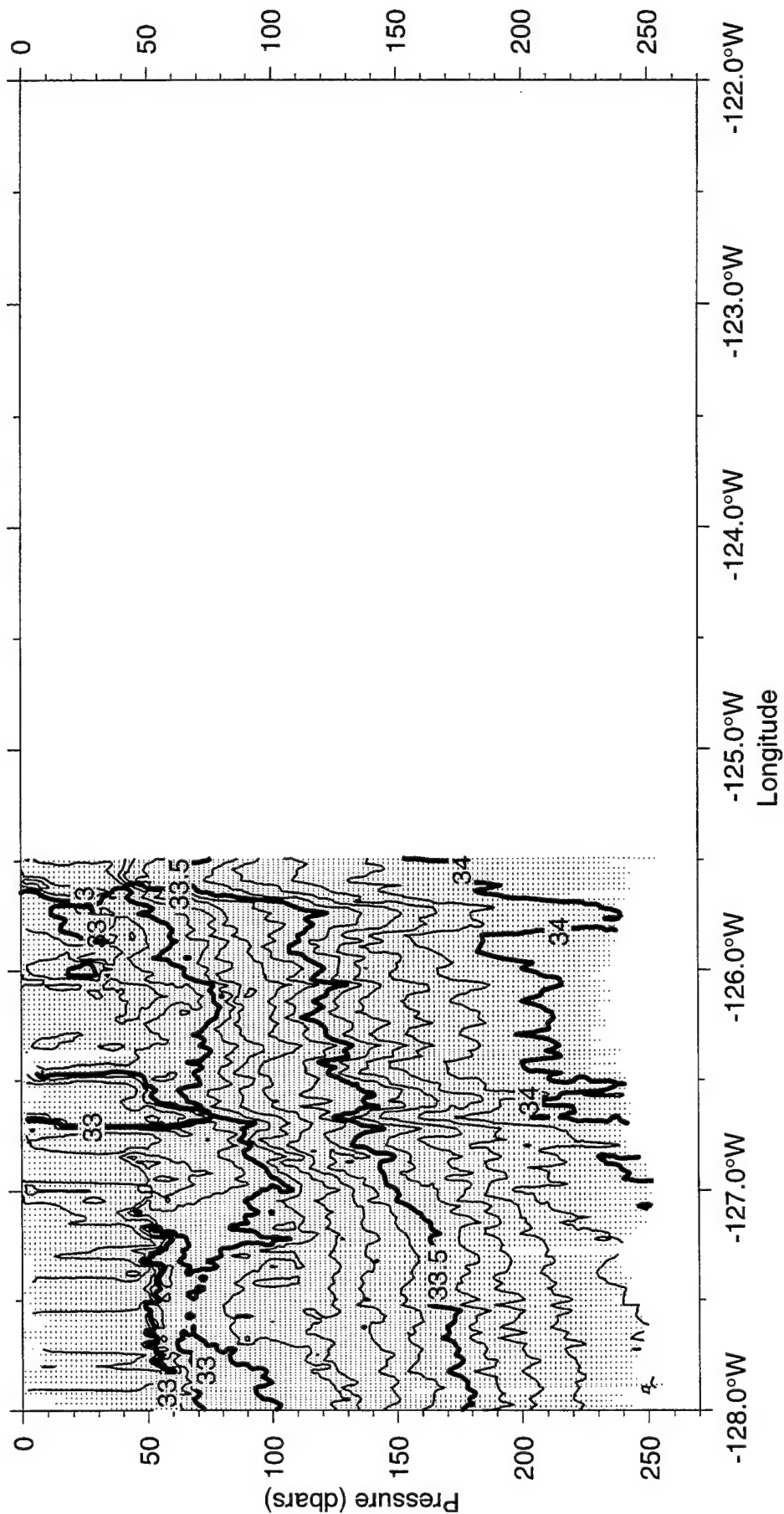
Large Scale Survey, Line 09, 37.50 °N, 8/24/93 - 8/31/93, Salinity



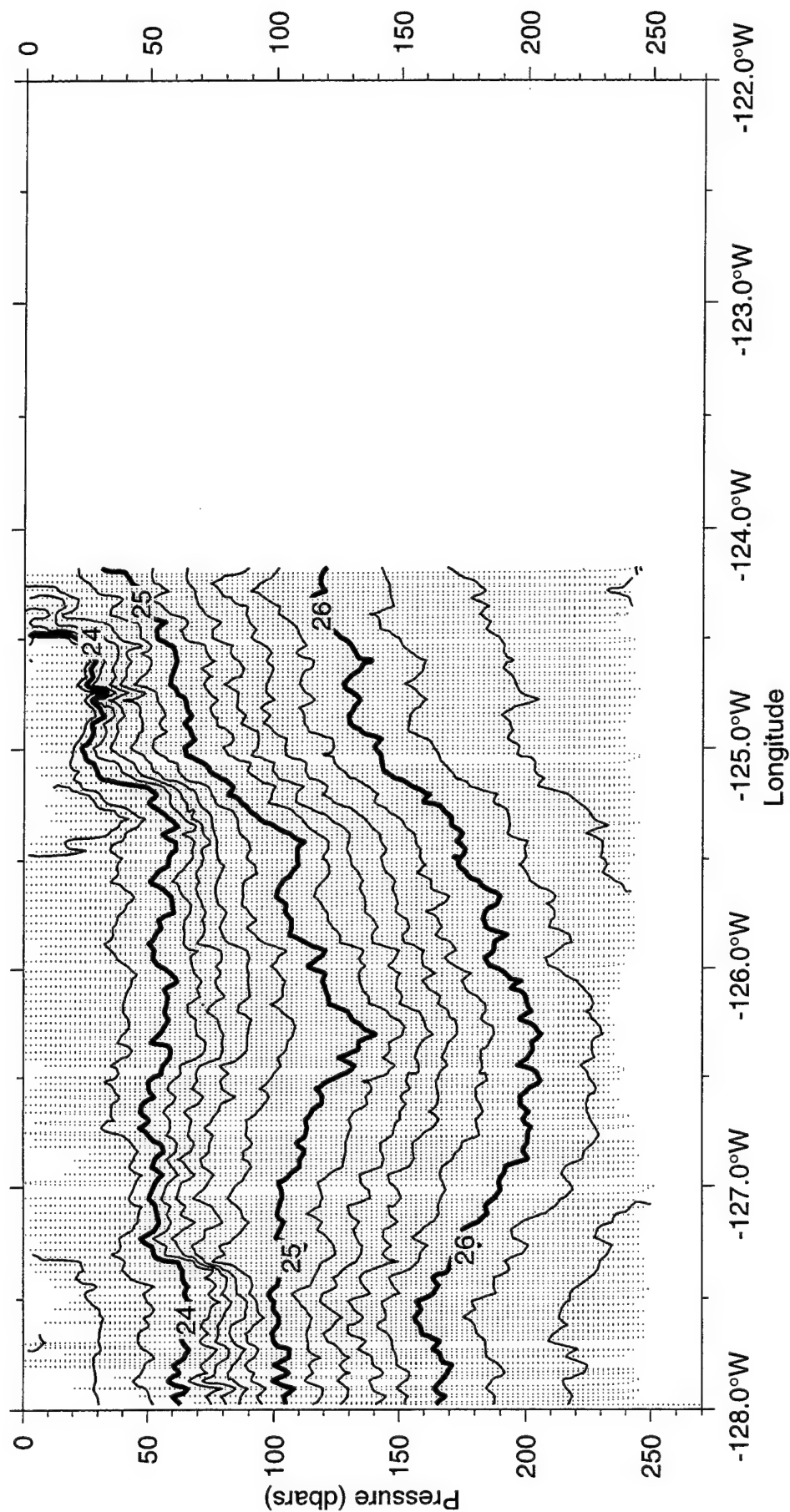
Large Scale Survey, Line 10, 37.25 °N, 8/31/93 - 9/1/93, Salinity



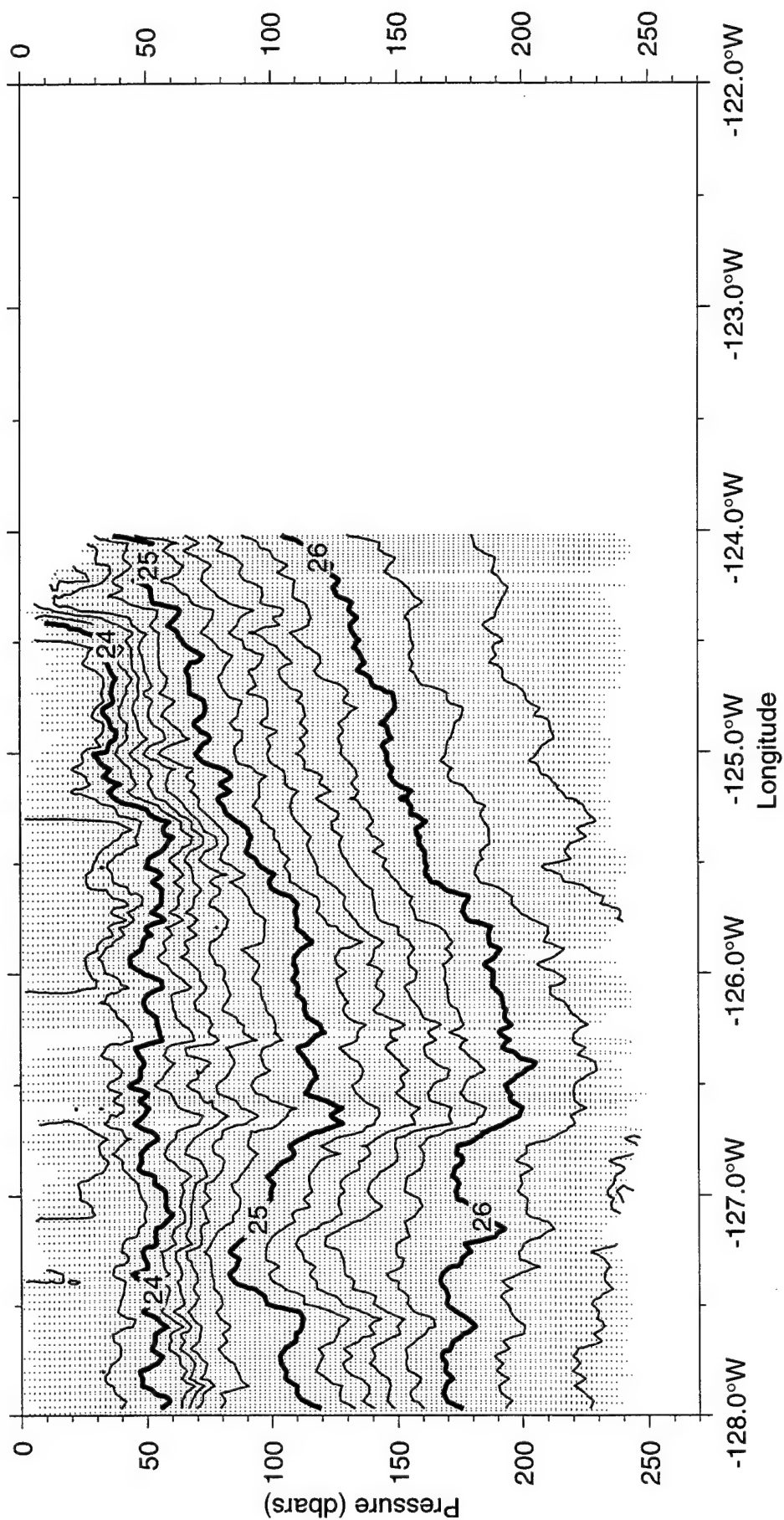
Large Scale Survey, Line 11, 37.00 °N, 8/31/93 - 9/1/93, Salinity



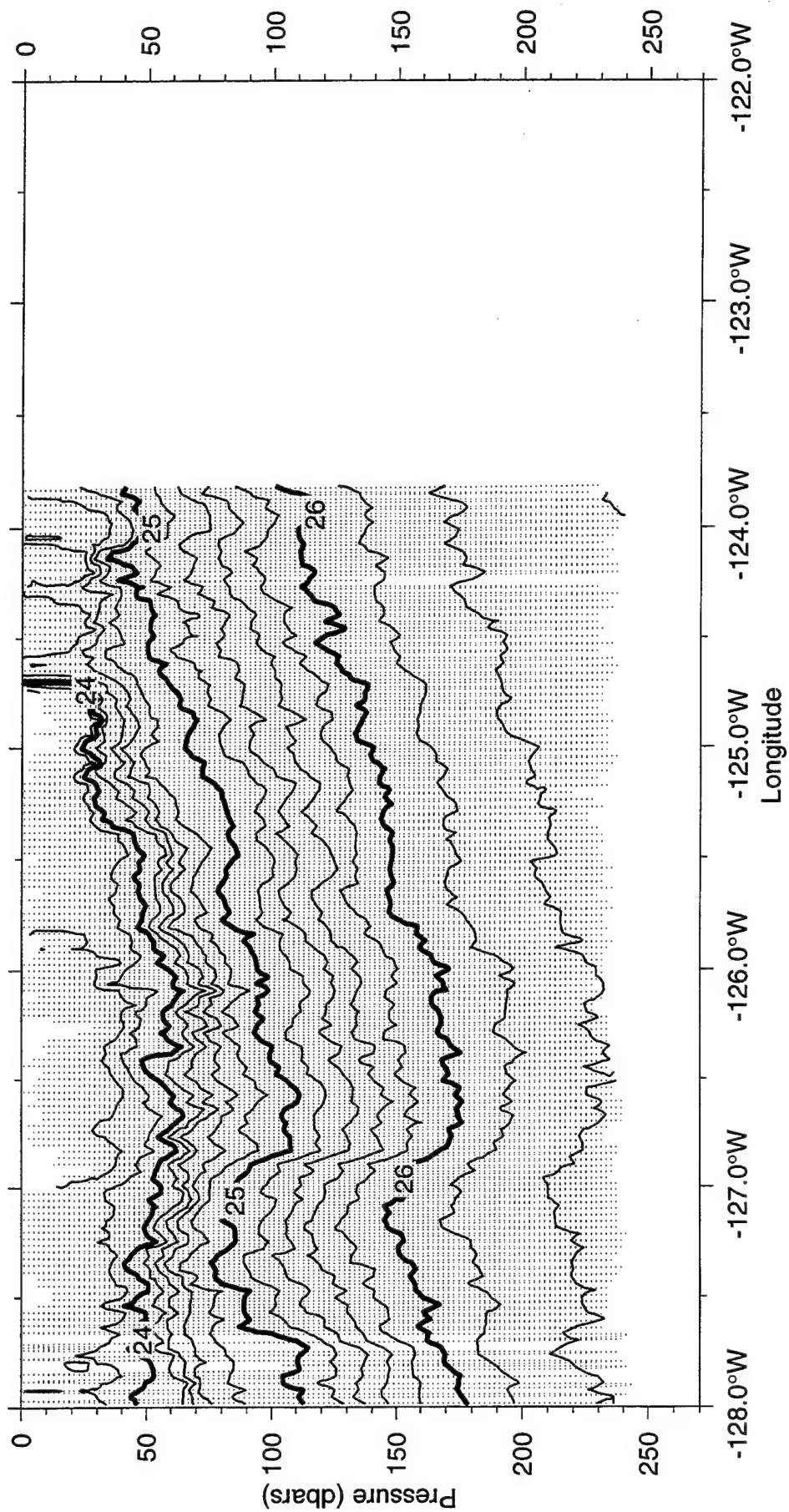
Large Scale Survey, Line 03, 39.00 °N, 8/16/93 - 8/17/93, Sigma-t (kg/m³)



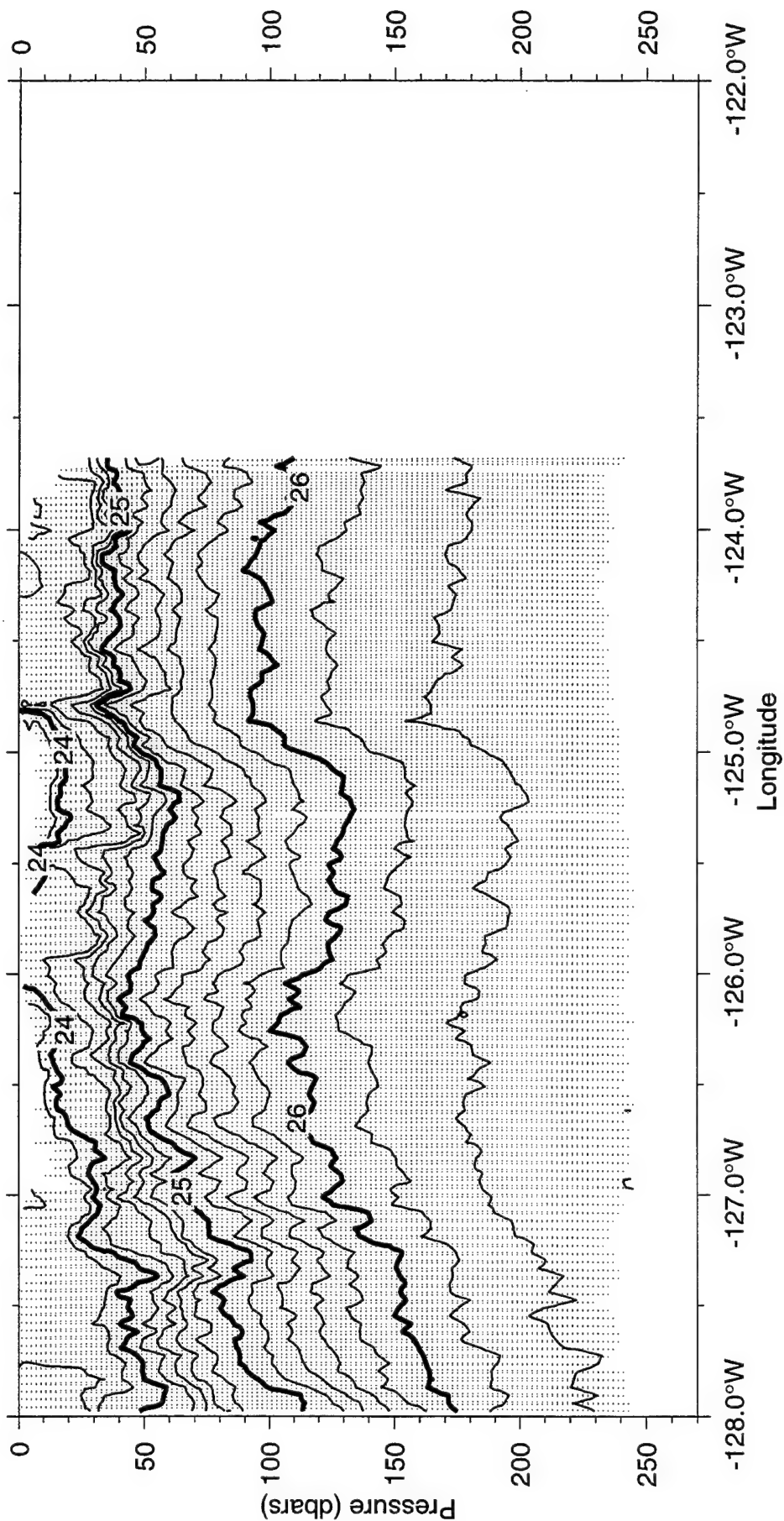
Large Scale Survey, Line 04, 38.75 °N, 8/17/93 - 8/18/93, Sigma-t (kg/m³)



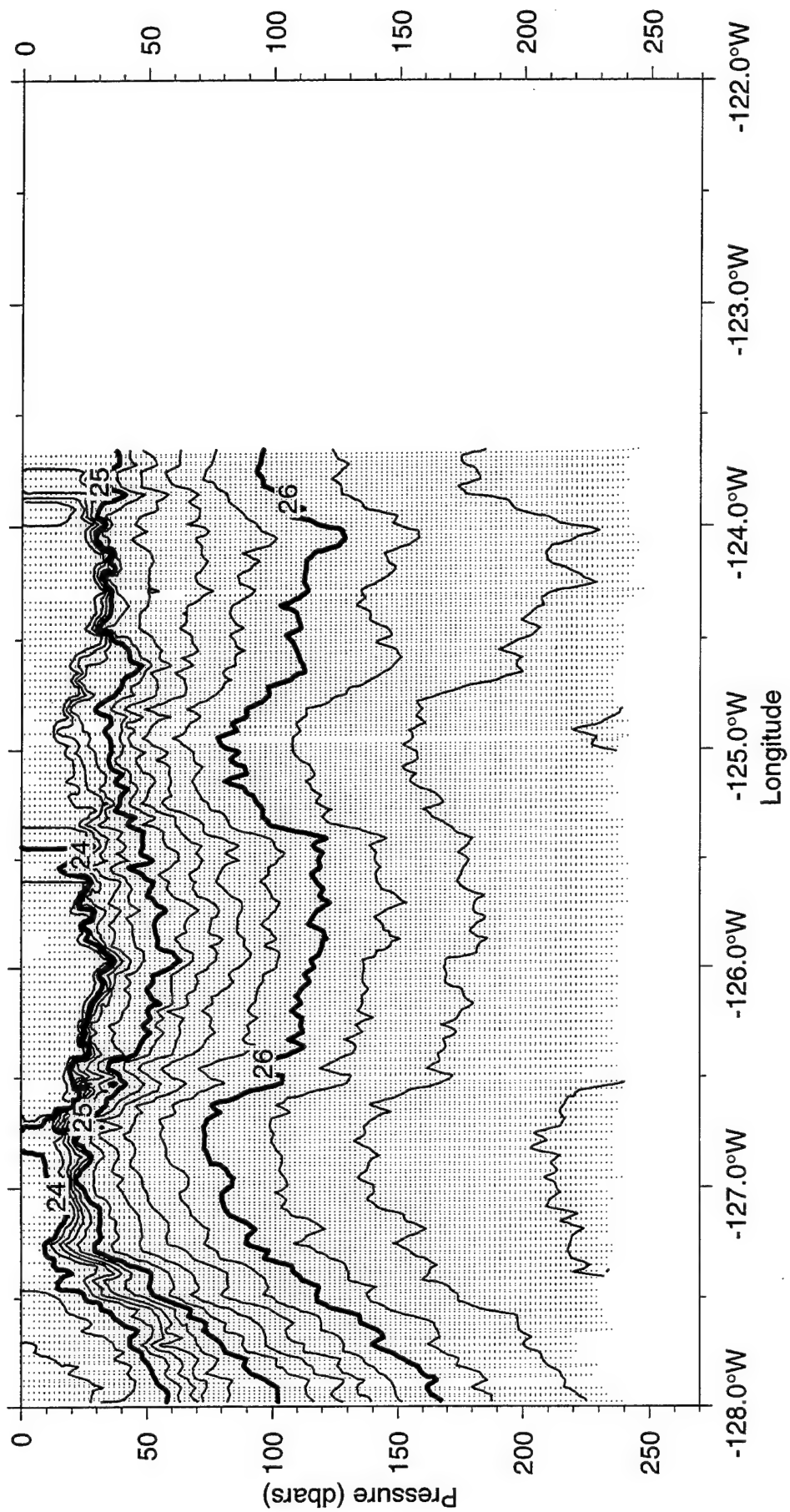
Large Scale Survey, Line 05, 38.50 °N, 8/18/93 - 8/19/93, Sigma-t (kg/m³)



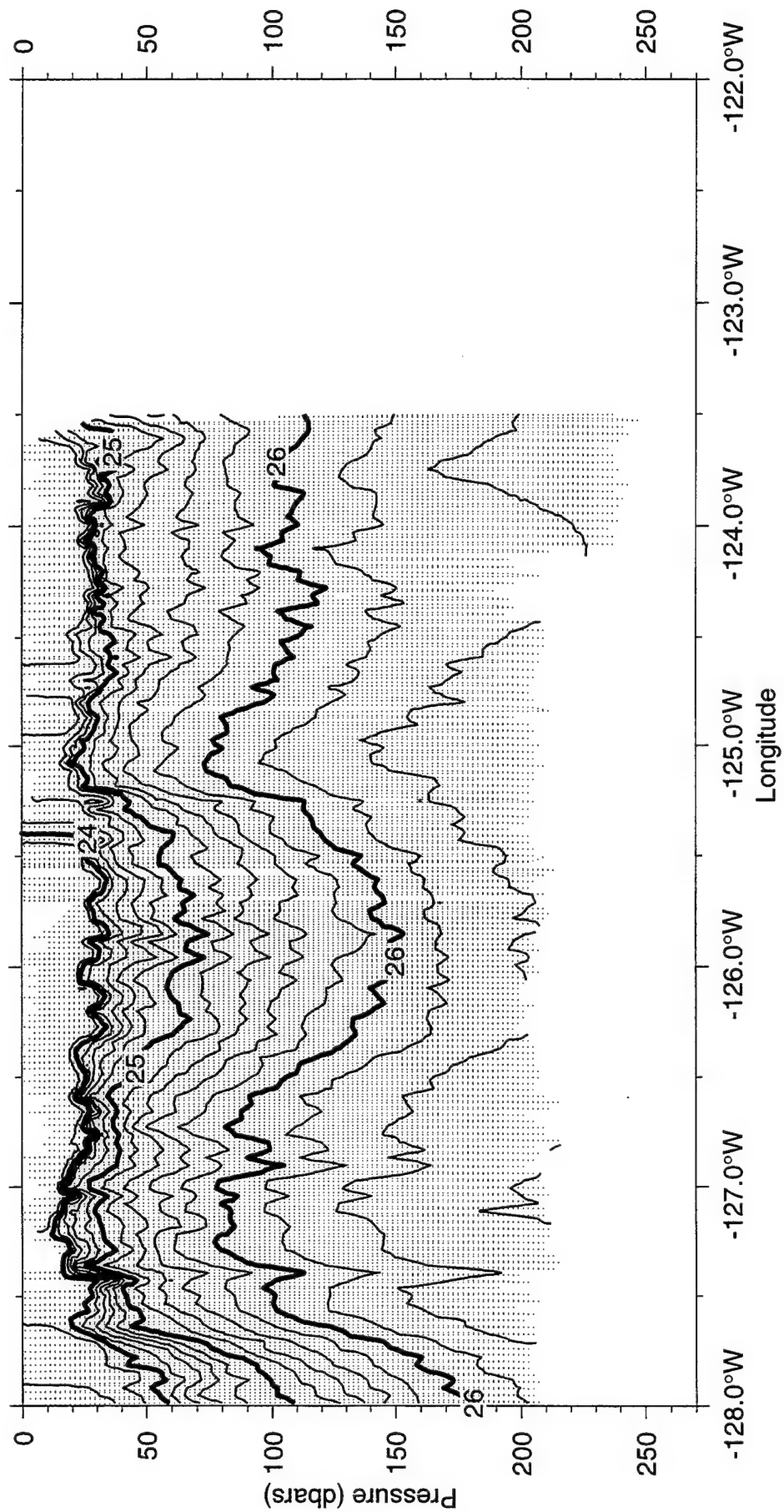
Large Scale Survey, Line 06, 38.25 °N, 8/19/93 - 8/20/93, Sigma-t (kg/m³)



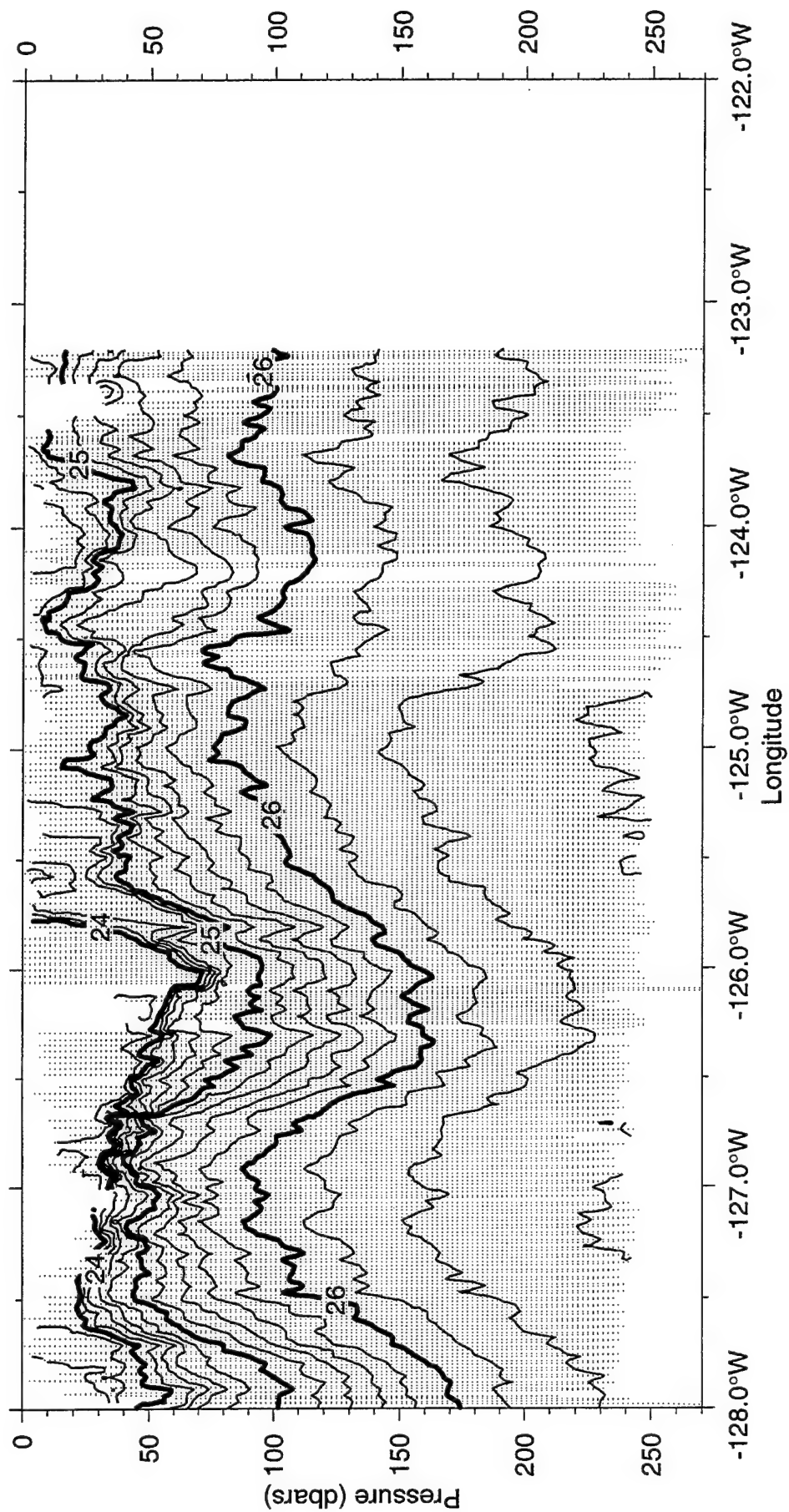
Large Scale Survey, Line 07, 38.00 °N, 8/20/93 - 8/22/93, Sigma-t (kg/m³)



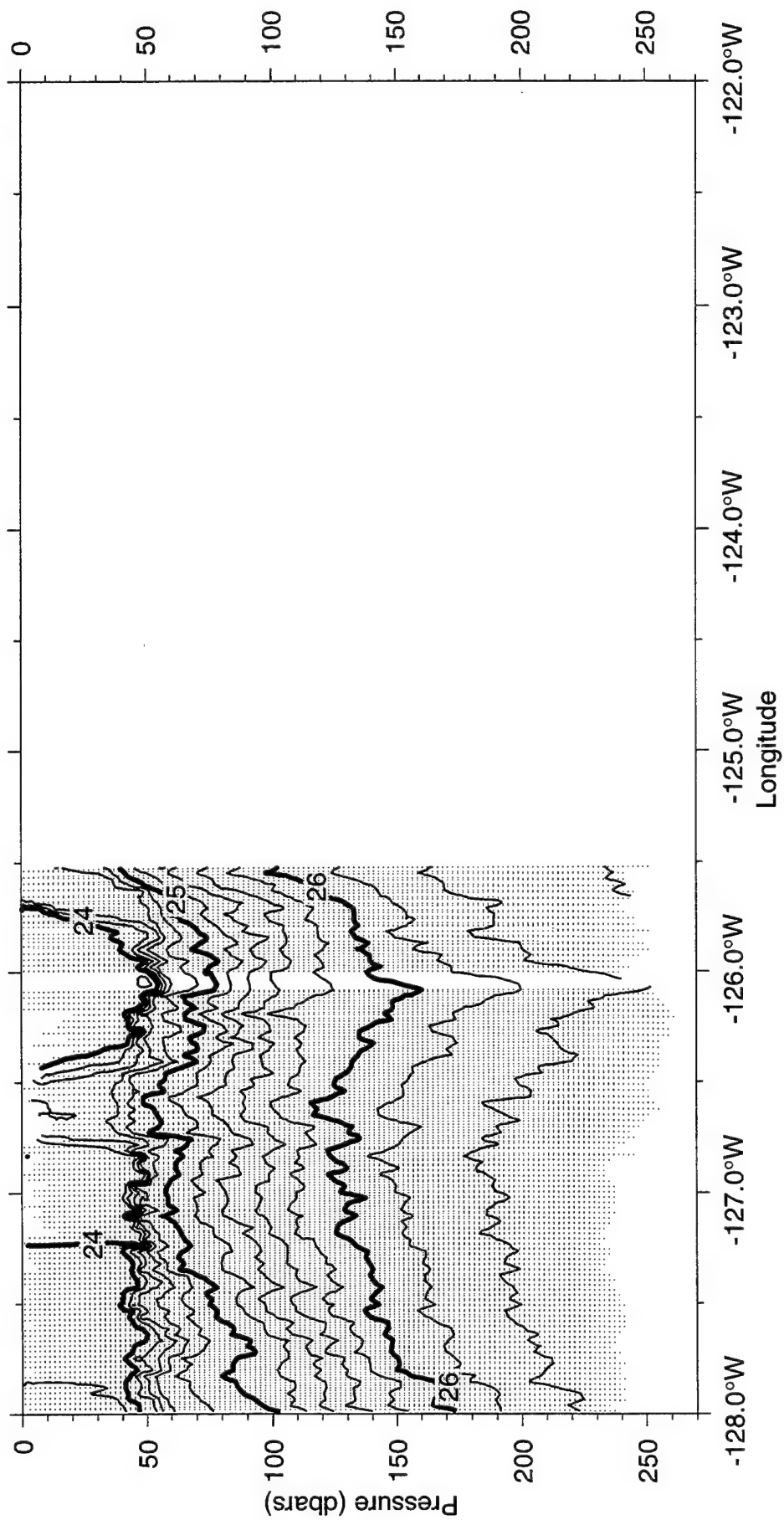
Large Scale Survey, Line 08, 37.75 °N, 8/22/93 - 8/23/93, Sigma-t (kg/m³)



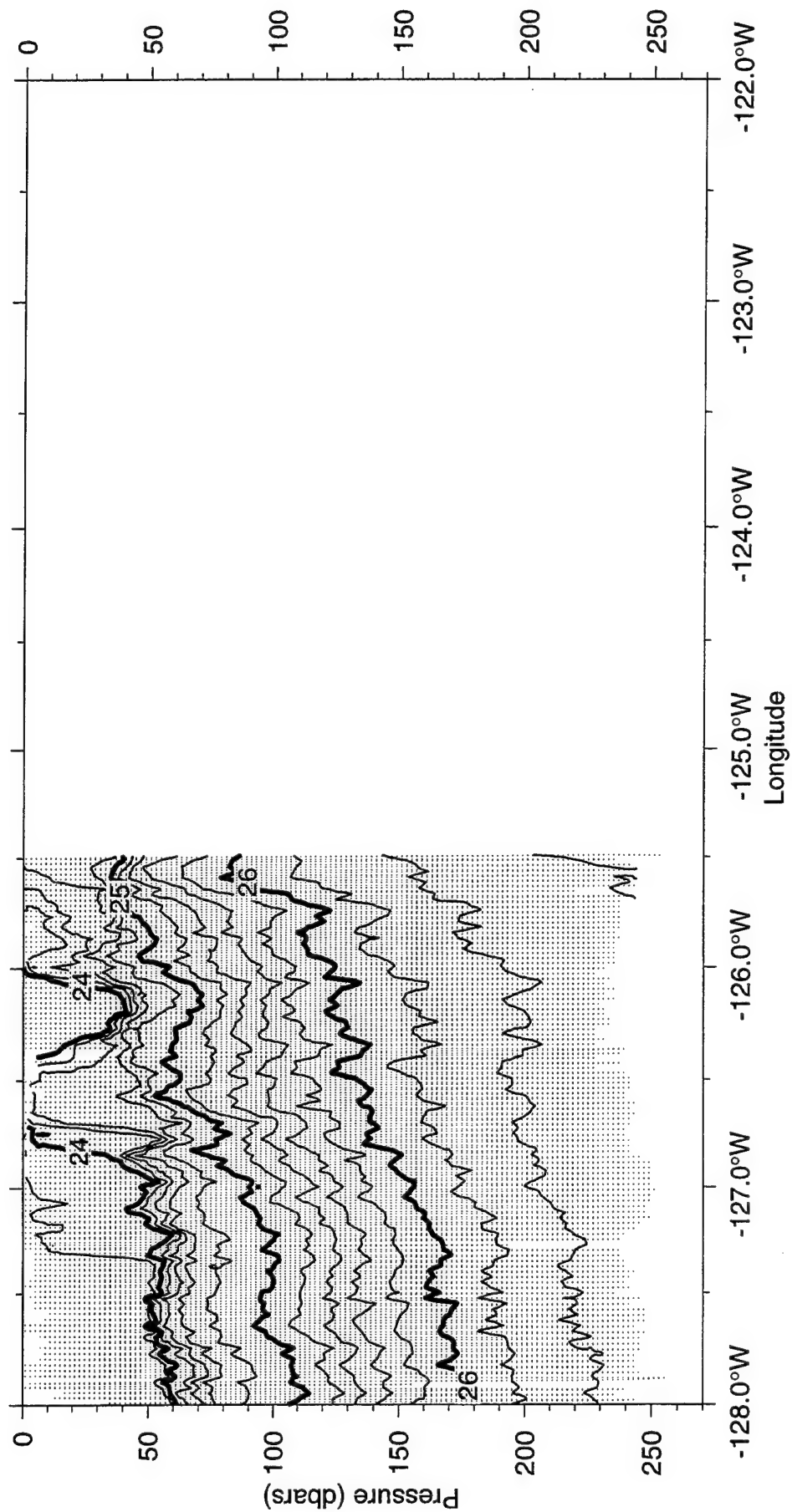
Large Scale Survey, Line 09, 37.50 °N, 8/24/93 - 8/31/93, Sigma-t (kg/m³)



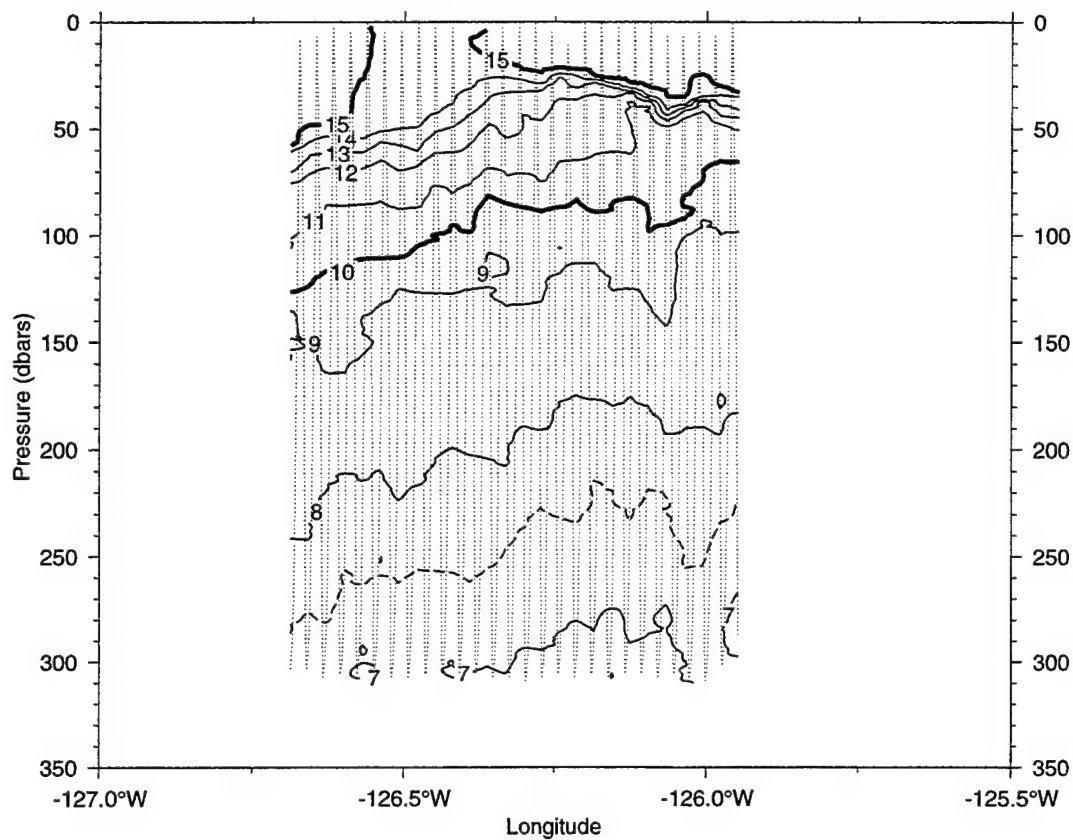
Large Scale Survey, Line 10, 37.25 °N, 8/31/93 - 9/1/93, Sigma-t (kg/m³)



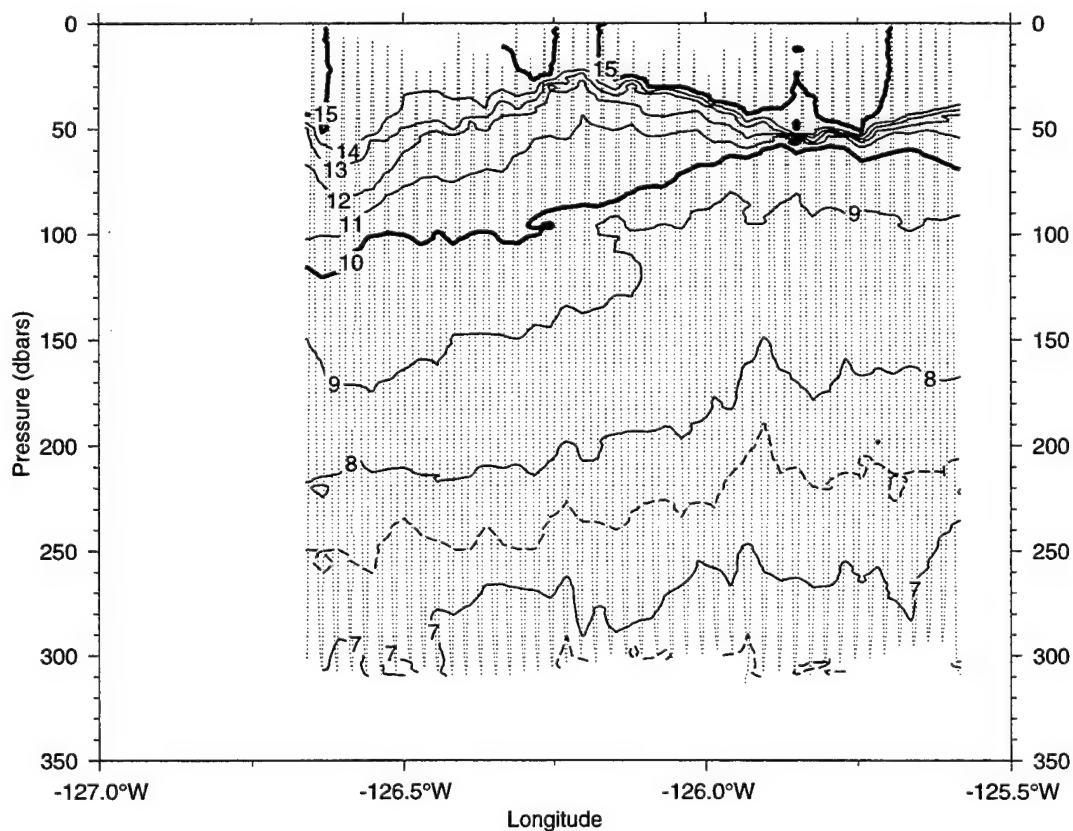
Large Scale Survey, Line 11, 37.00 °N, 8/31/93 - 9/1/93, Sigma-t (kg/m³)



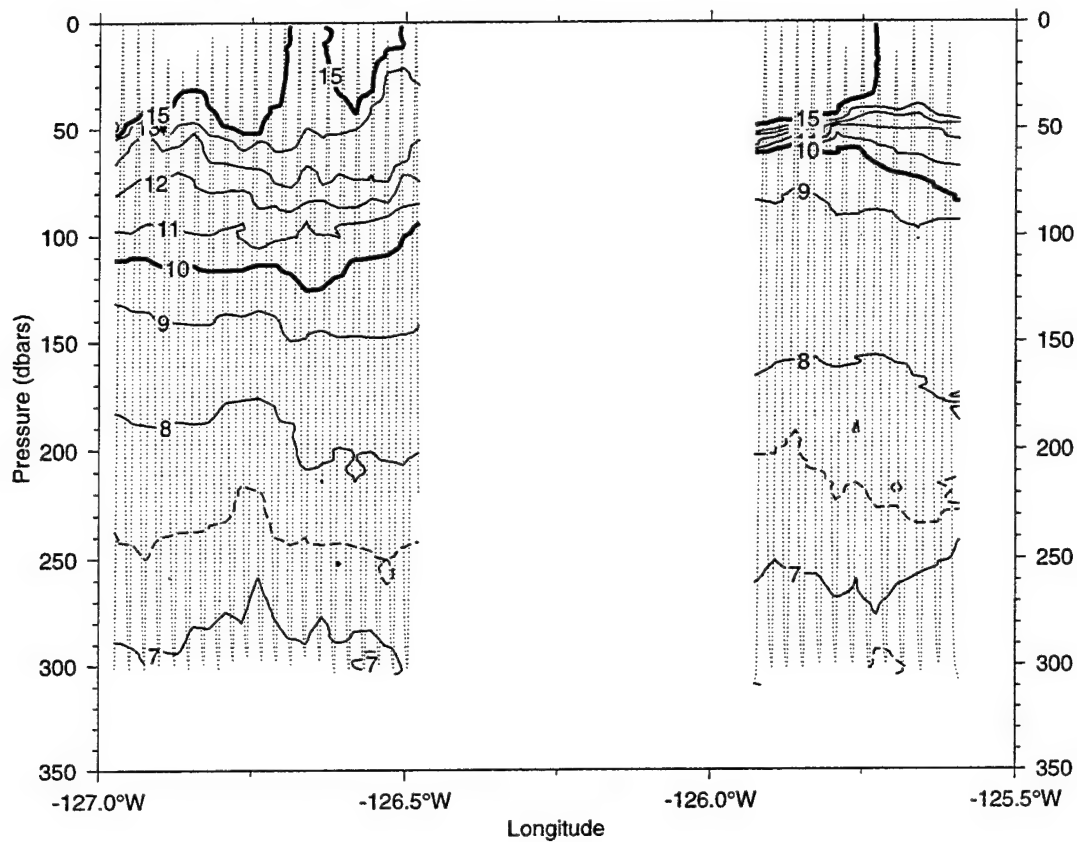
Small Scale Survey 1, Line 01, 38.10 °N, 6/30/93 - 7/1/93, Temperature(°C)



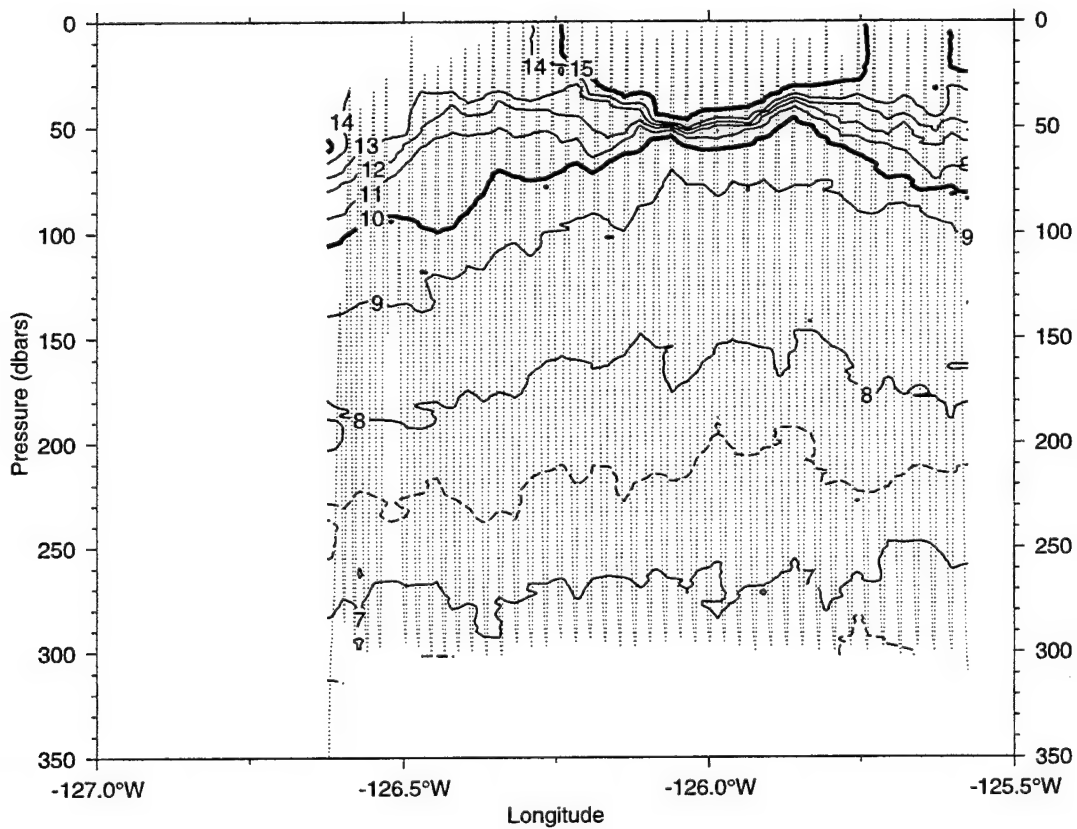
Small Scale Survey 1, Line 02, 37.97 °N, 6/30/93 - 7/1/93, Temperature(°C)



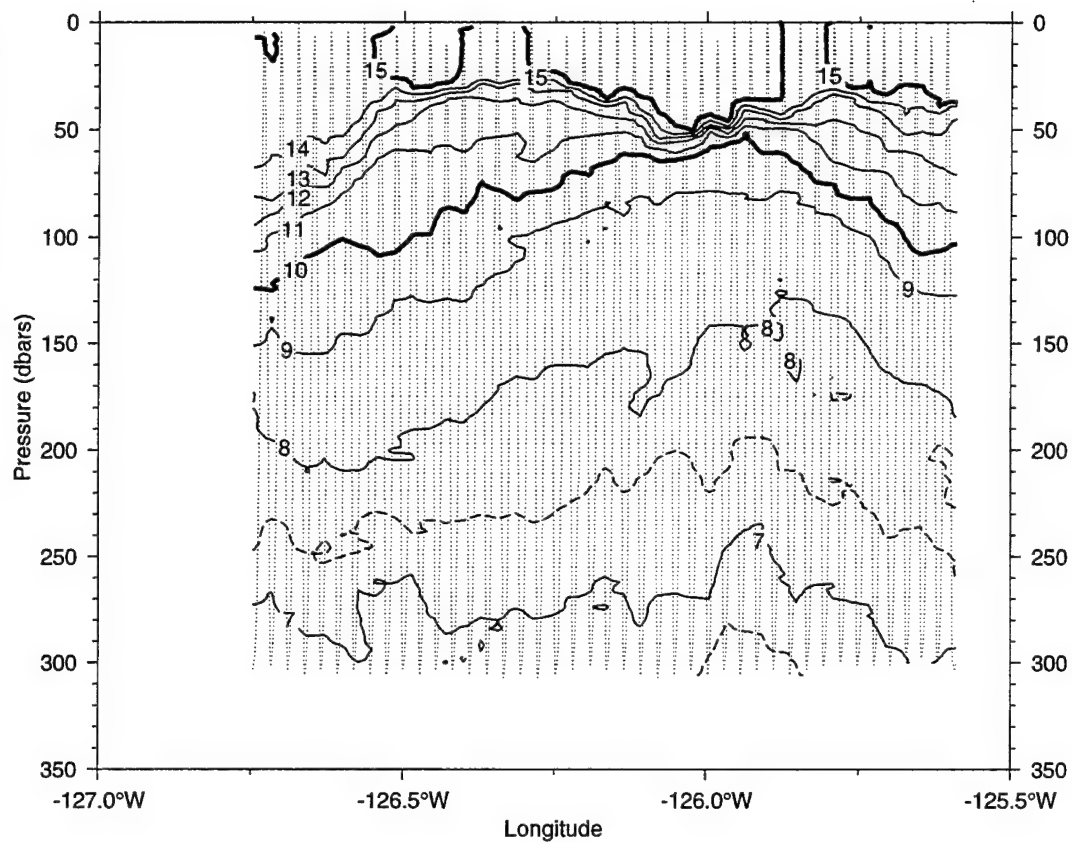
Small Scale Survey 1, Line 03, 37.92 °N, 6/29/93 - 7/1/93, Temperature(°C)



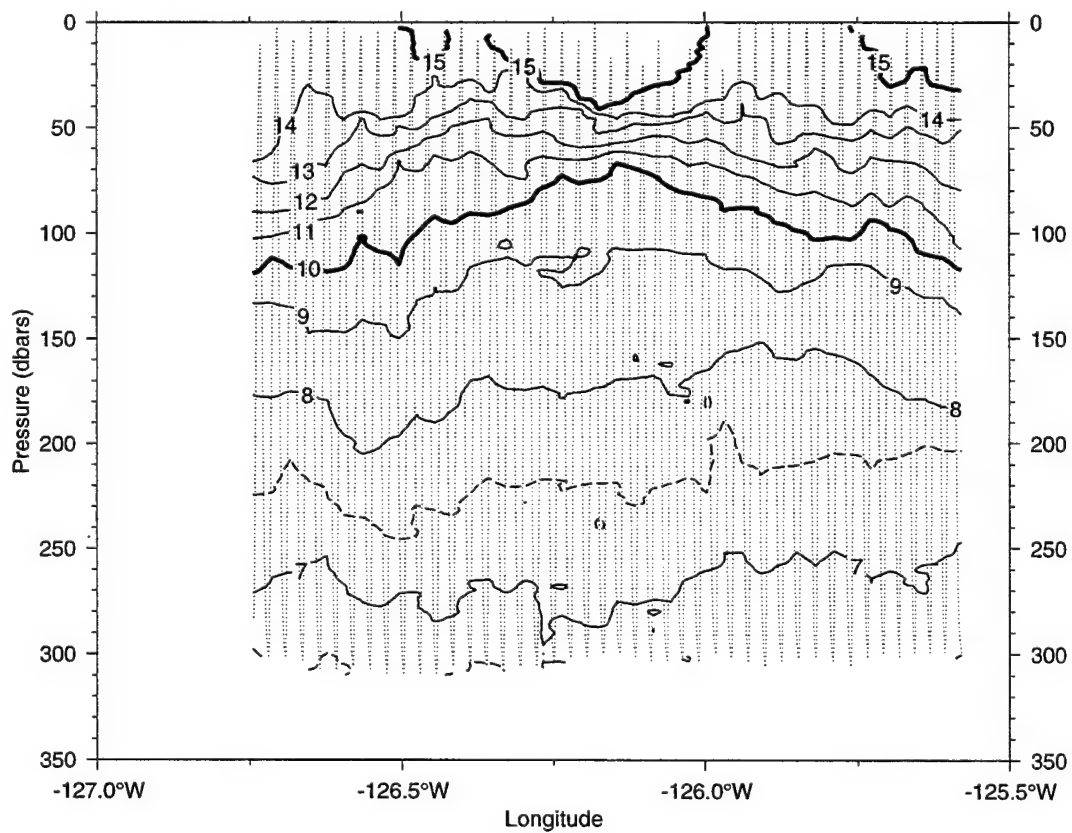
Small Scale Survey 1, Line 04, 37.87 °N, 6/30/93 - 6/30/93, Temperature(°C)



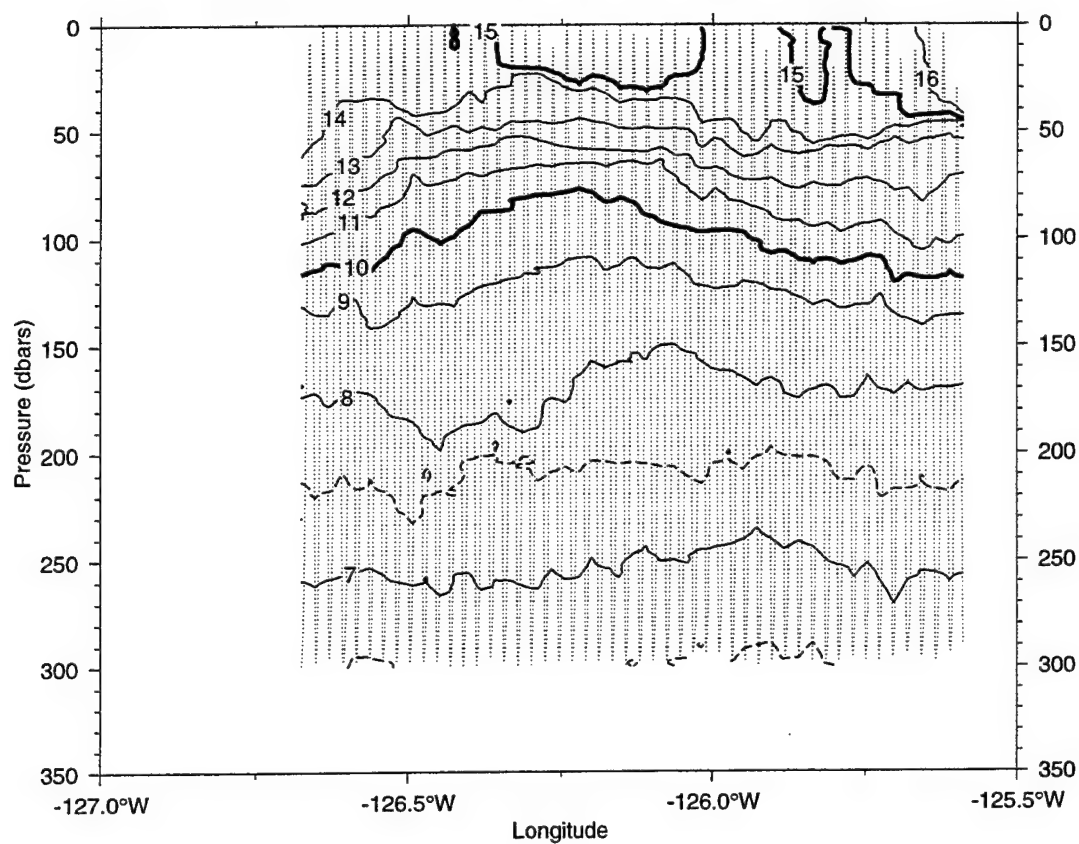
Small Scale Survey 1, Line 05, 37.78 °N, 7/1/93 - 7/1/93, Temperature(°C)



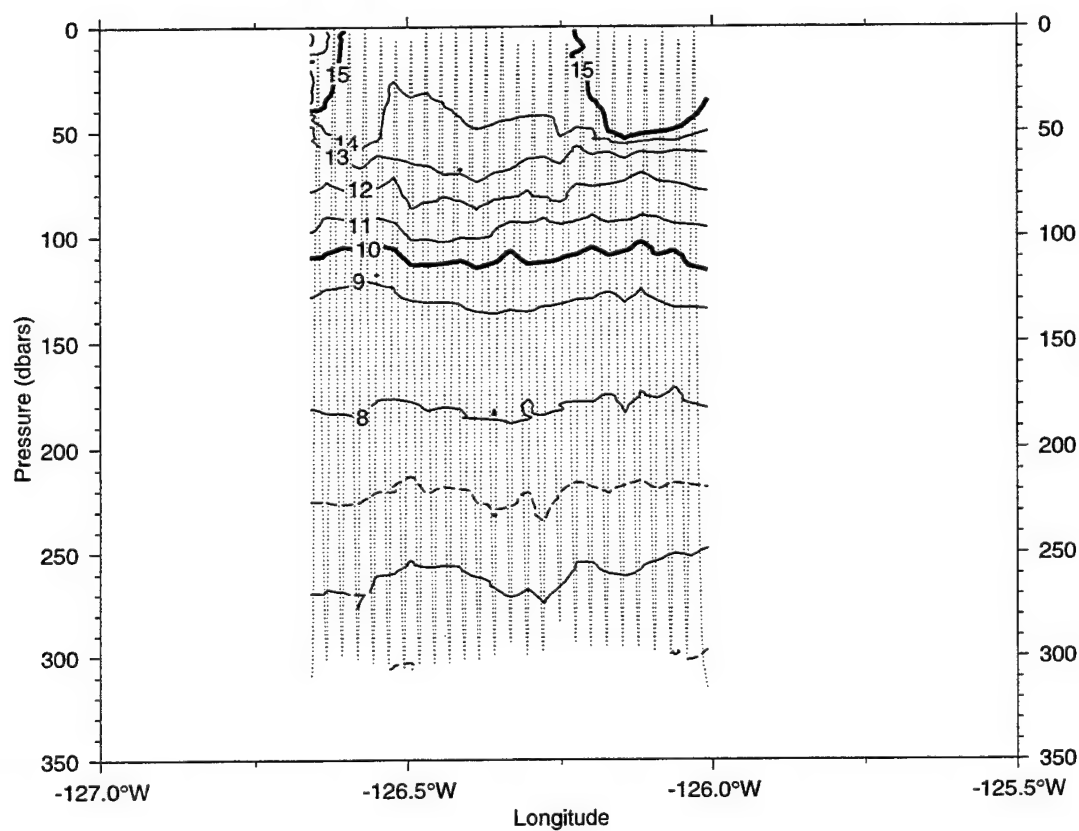
Small Scale Survey 1, Line 06, 37.69 °N, 7/1/93 - 7/2/93, Temperature(°C)



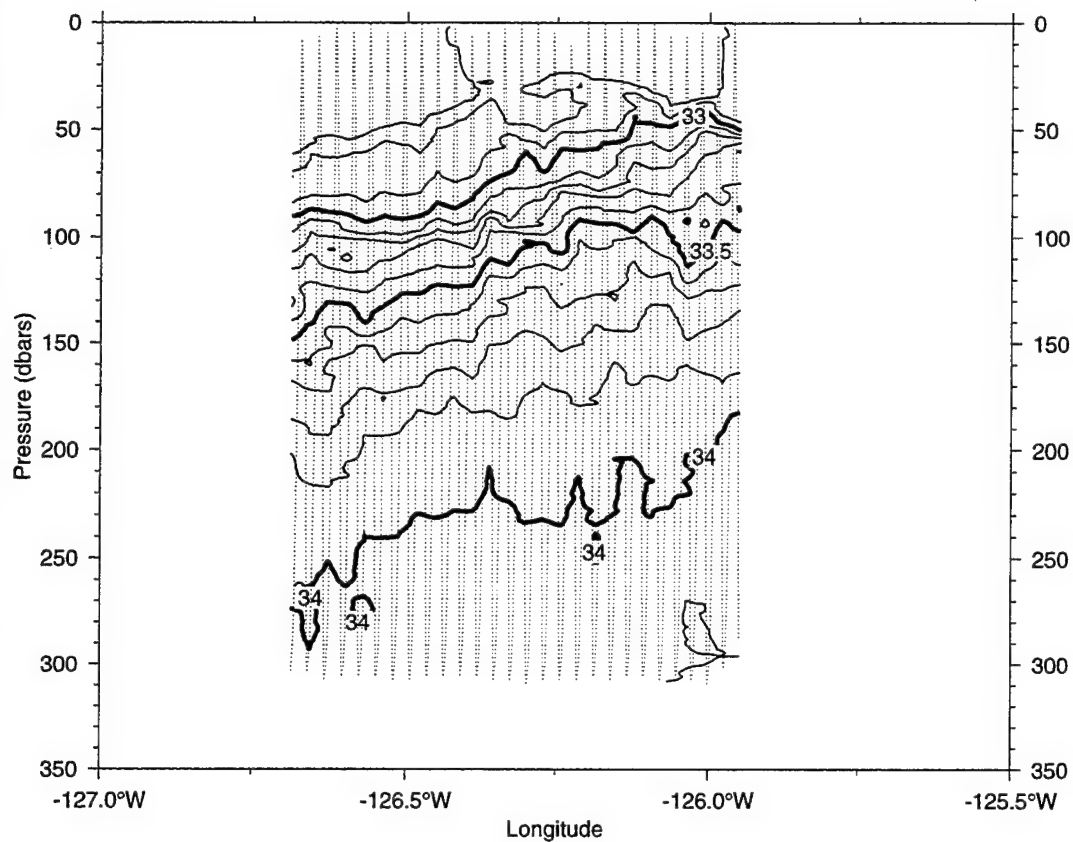
Small Scale Survey 1, Line 07, 37.60 °N, 7/2/93 - 7/2/93, Temperature(°C)



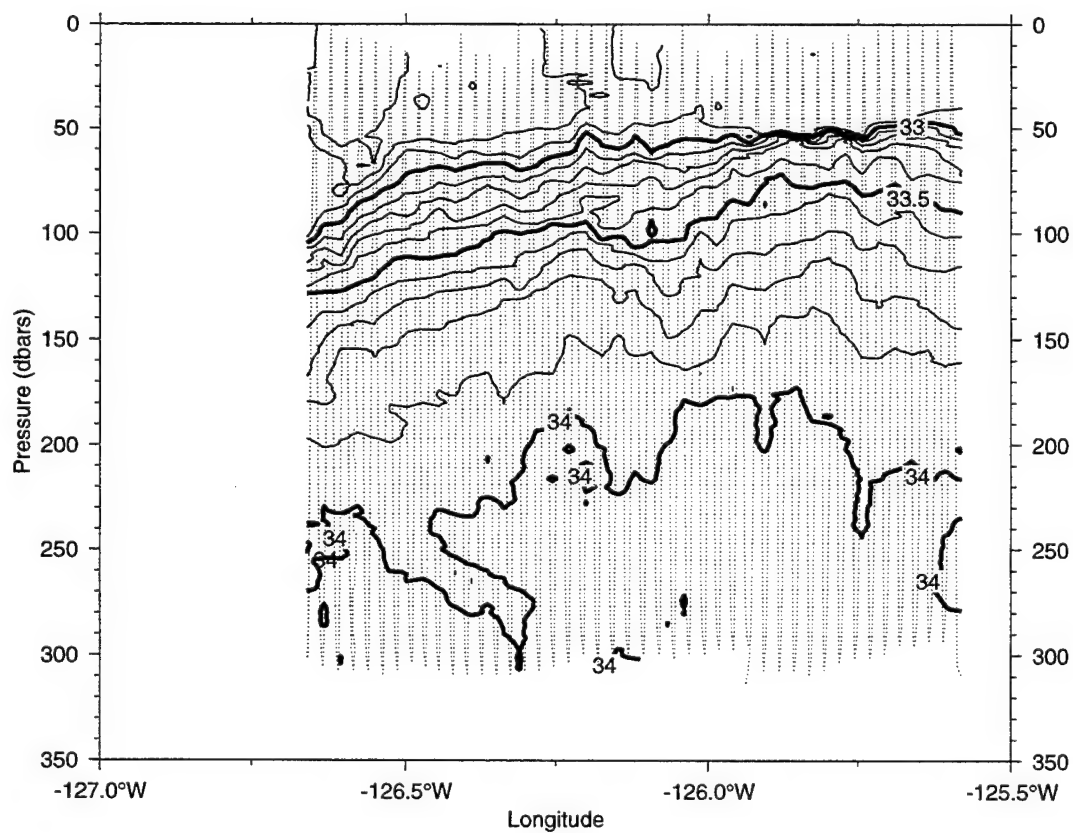
Small Scale Survey 1, Line 08, 37.51 °N, 7/2/93 - 7/2/93, Temperature(°C)



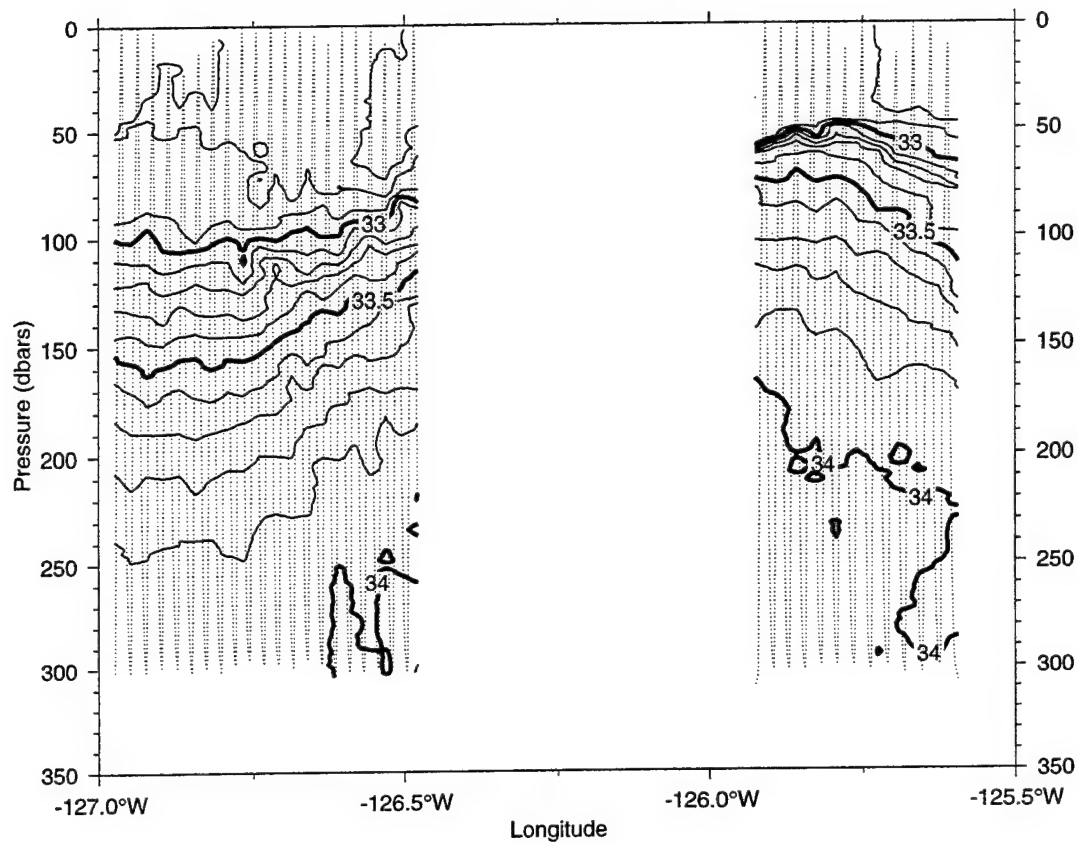
Small Scale Survey 1, Line 01, 38.10 °N, 6/30/93 - 7/1/93, Salinity



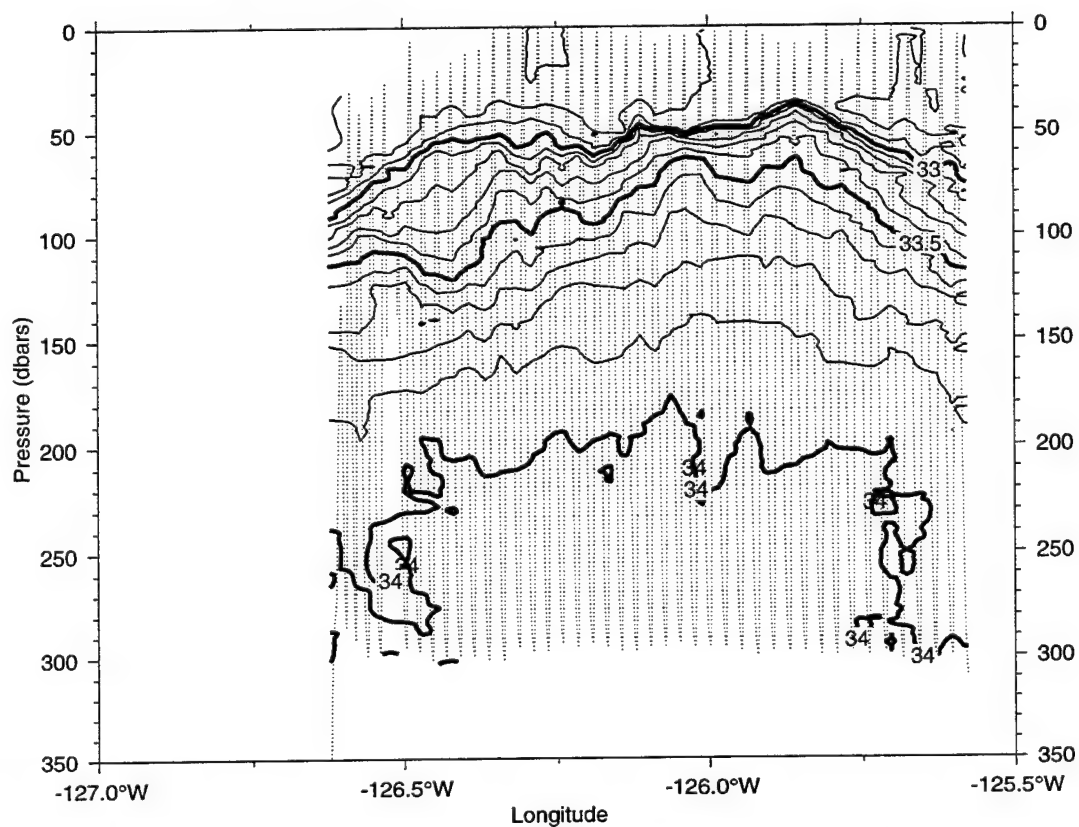
Small Scale Survey 1, Line 02, 37.97 °N, 6/30/93 - 7/1/93, Salinity



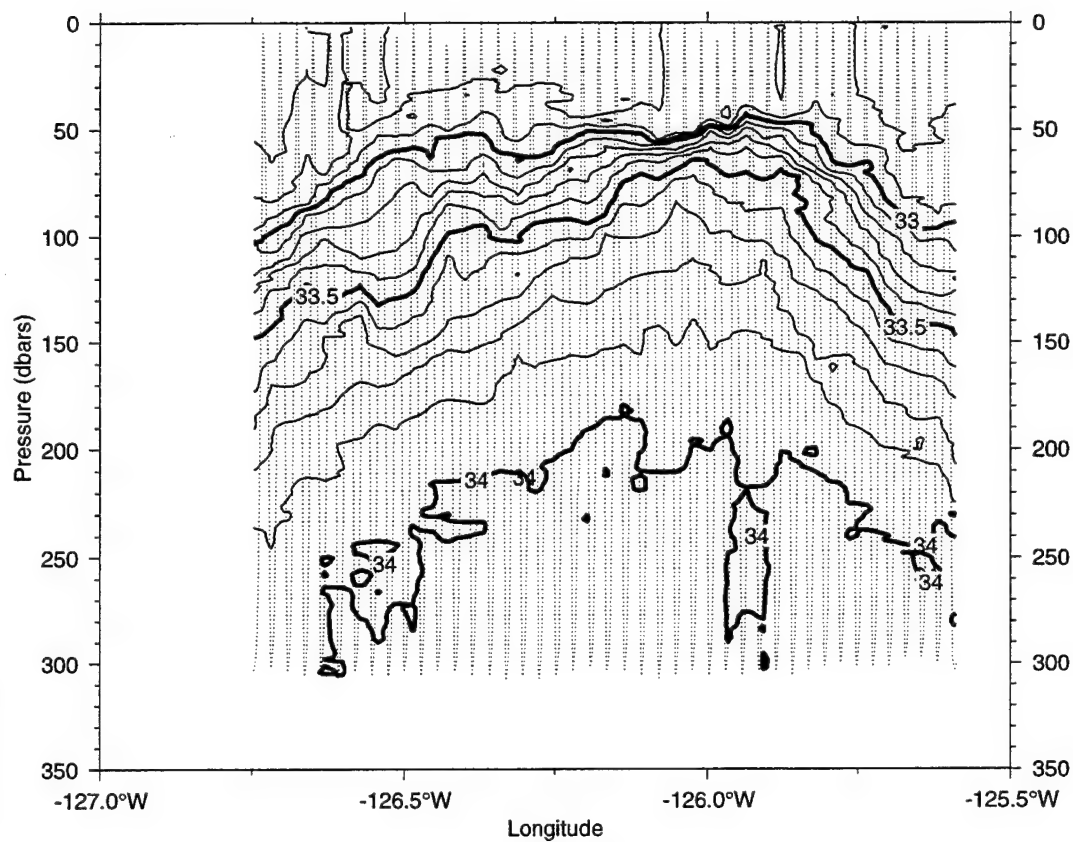
Small Scale Survey 1, Line 03, 37.92 °N, 6/29/93 - 7/1/93, Salinity



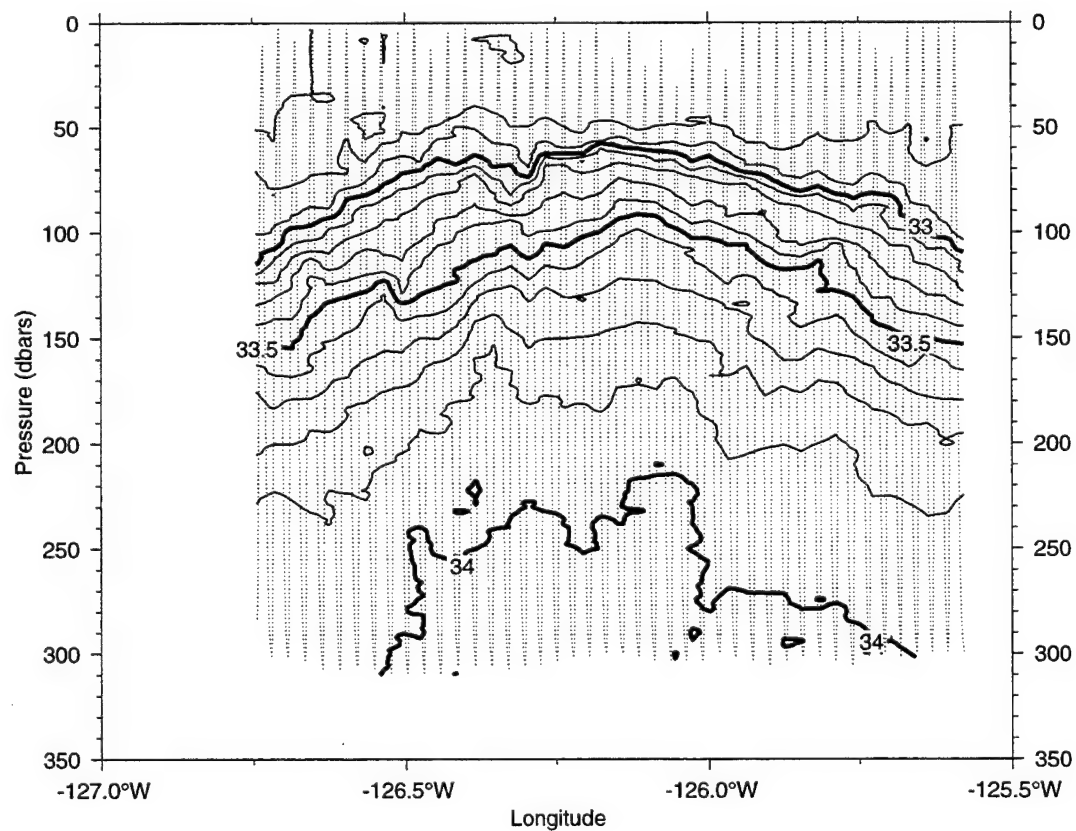
Small Scale Survey 1, Line 04, 37.87 °N, 6/30/93 - 6/30/93, Salinity



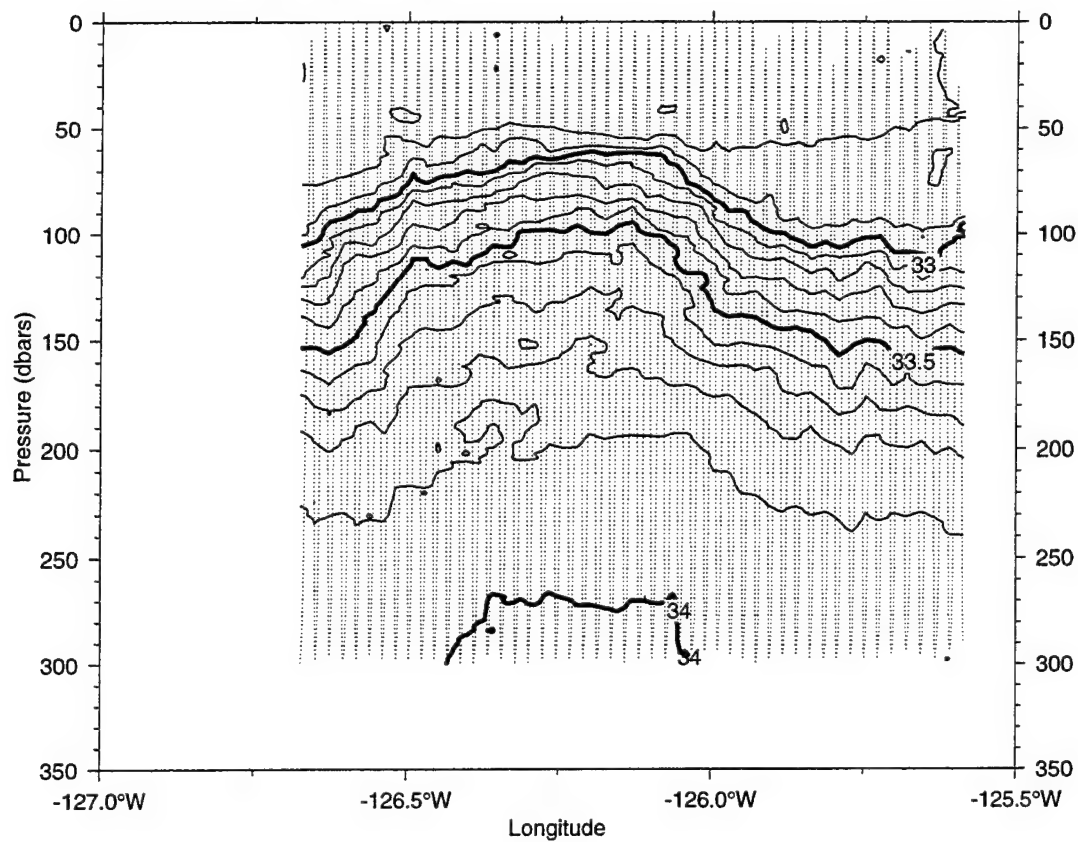
Small Scale Survey 1, Line 05, 37.78 °N, 7/1/93 - 7/1/93, Salinity



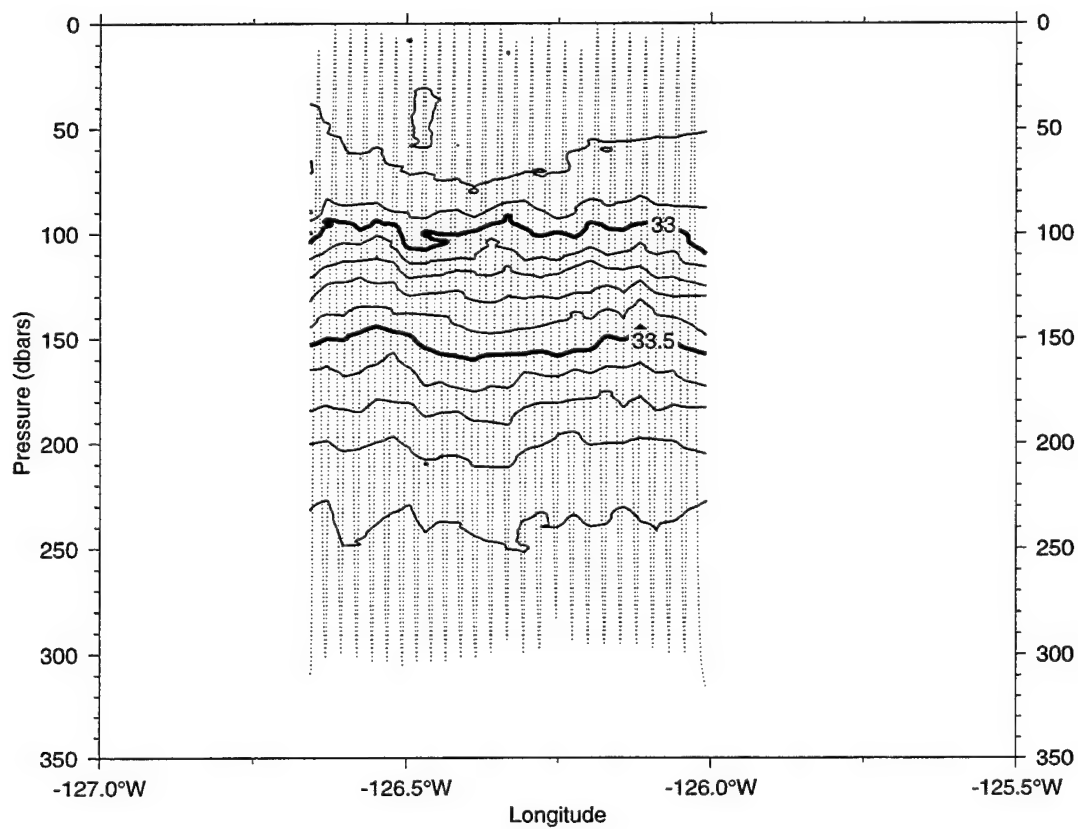
Small Scale Survey 1, Line 06, 37.69 °N, 7/1/93 - 7/2/93, Salinity



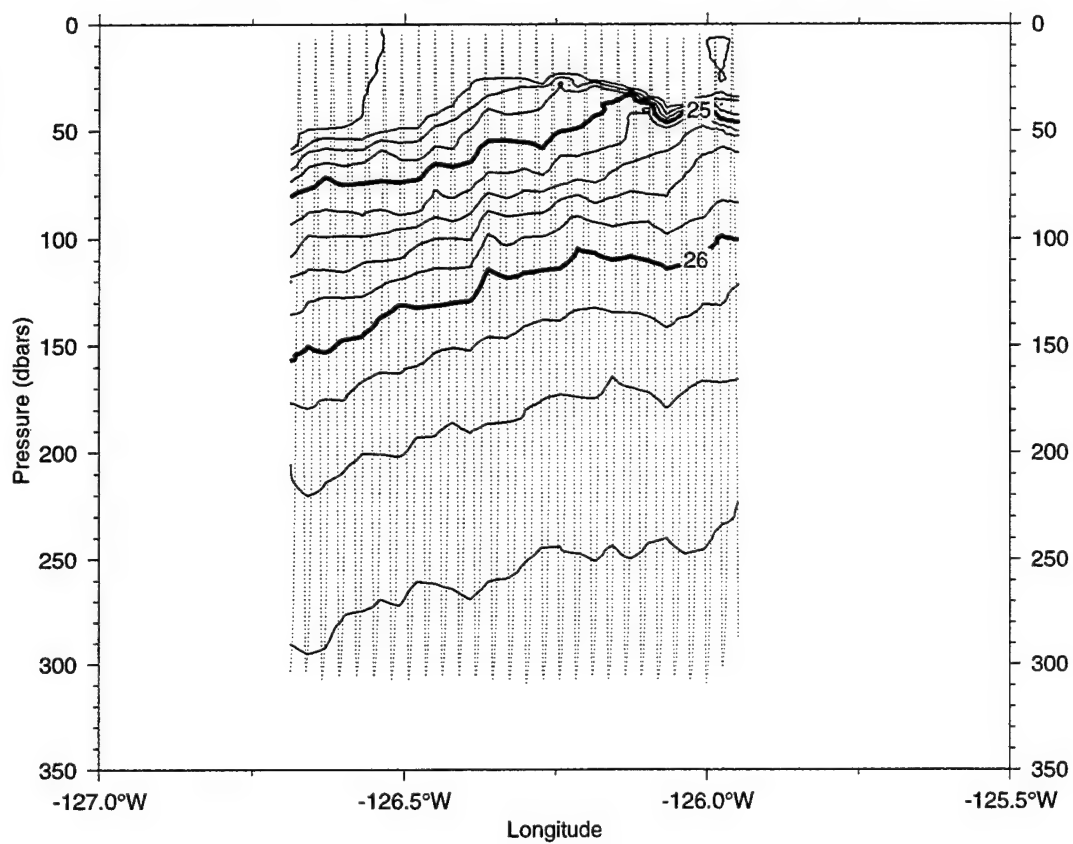
Small Scale Survey 1, Line 07, 37.60 °N, 7/2/93 - 7/2/93, Salinity



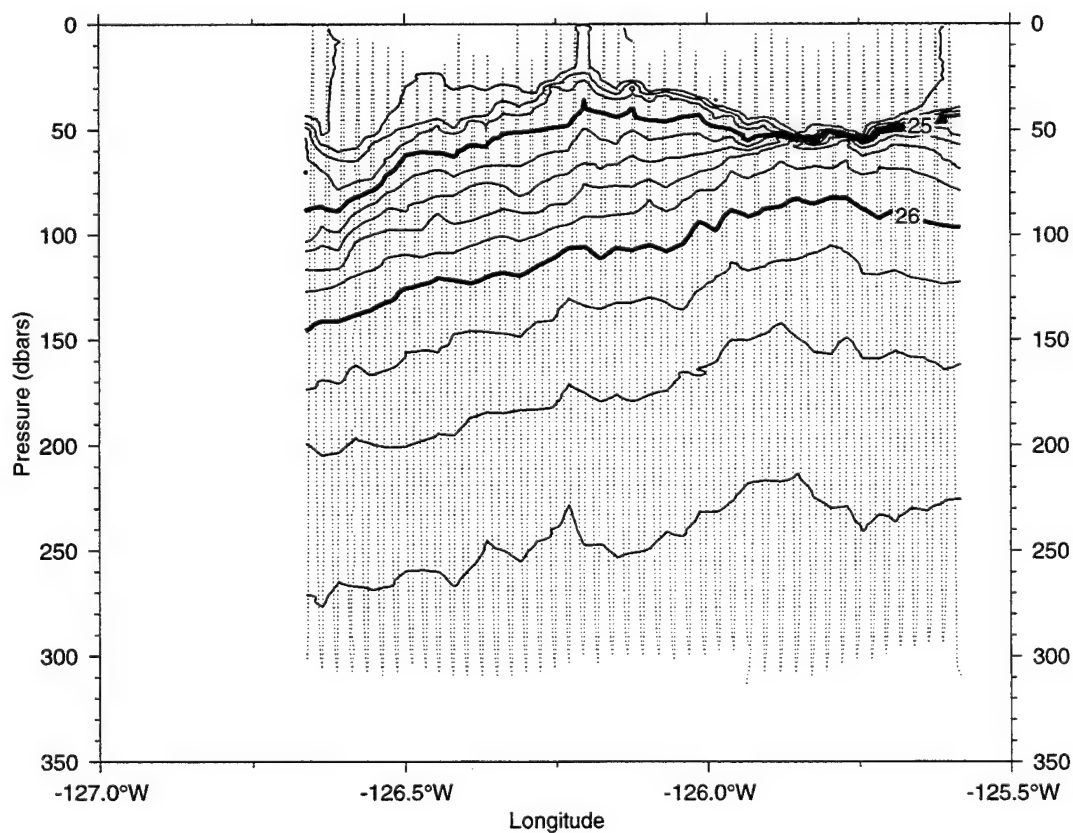
Small Scale Survey 1, Line 08, 37.51 °N, 7/2/93 - 7/2/93, Salinity



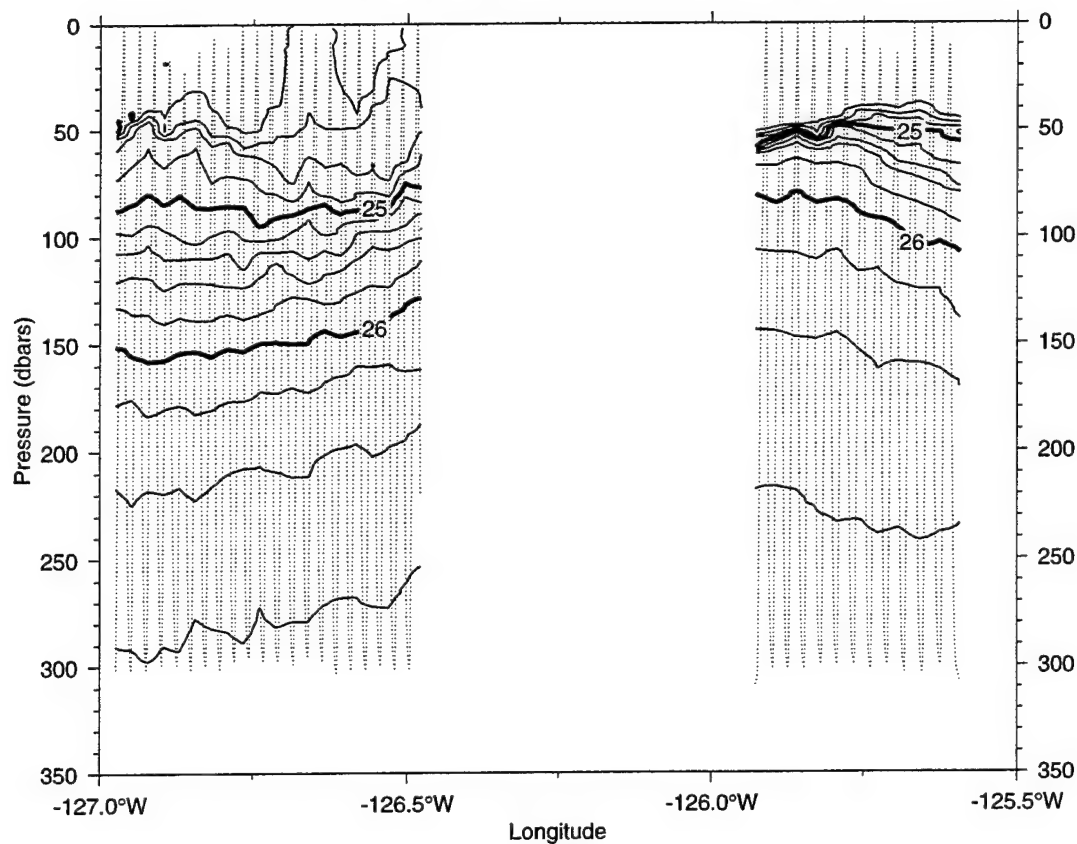
Small Scale Survey 1, Line 01, 38.10 °N, 6/30/93 - 7/1/93, Sigma-t (kg/m³)



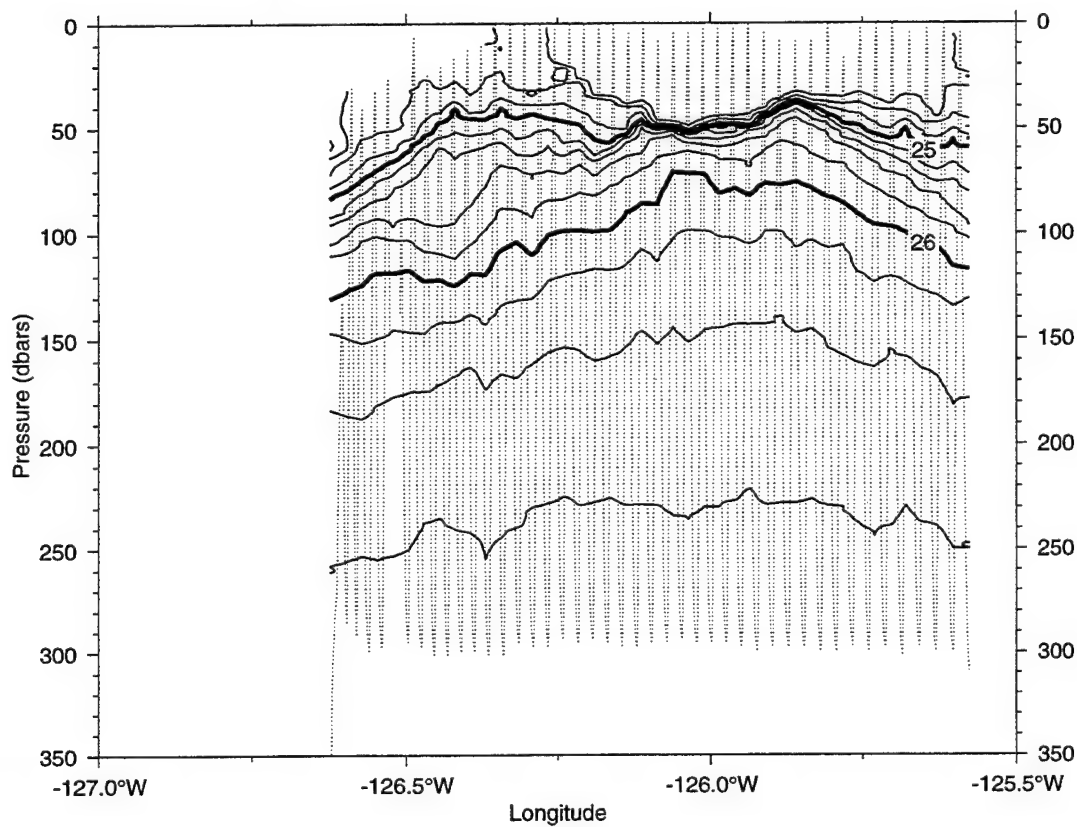
Small Scale Survey 1, Line 02, 37.97 °N, 6/30/93 - 7/1/93, Sigma-t (kg/m³)



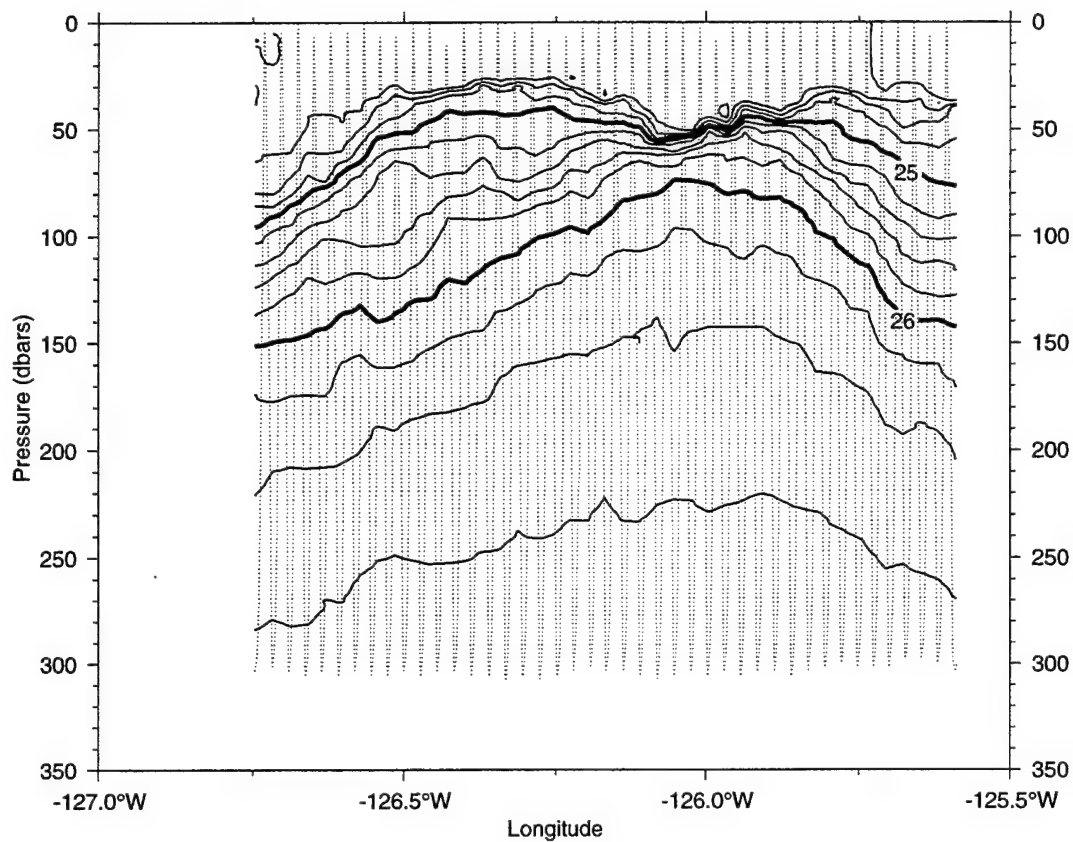
Small Scale Survey 1, Line 03, 37.92 °N, 6/29/93 - 7/1/93, Sigma-t (kg/m³)



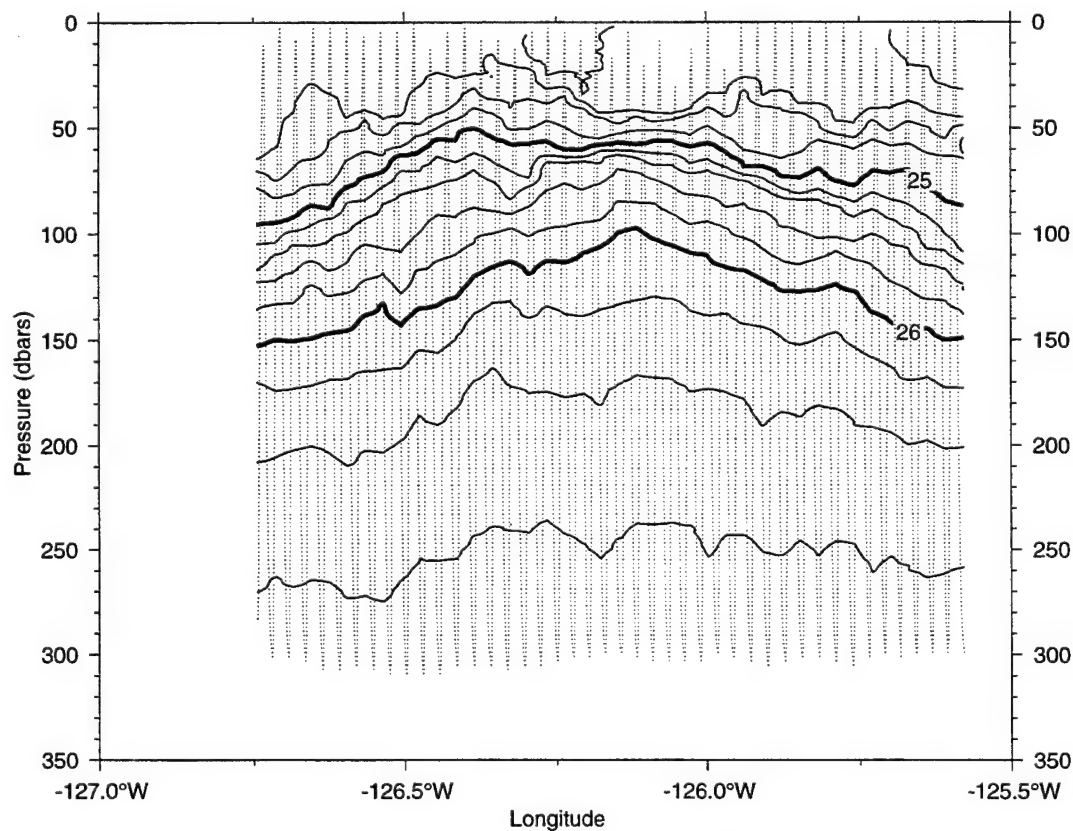
Small Scale Survey 1, Line 04, 37.87 °N, 6/30/93 - 6/30/93, Sigma-t (kg/m³)



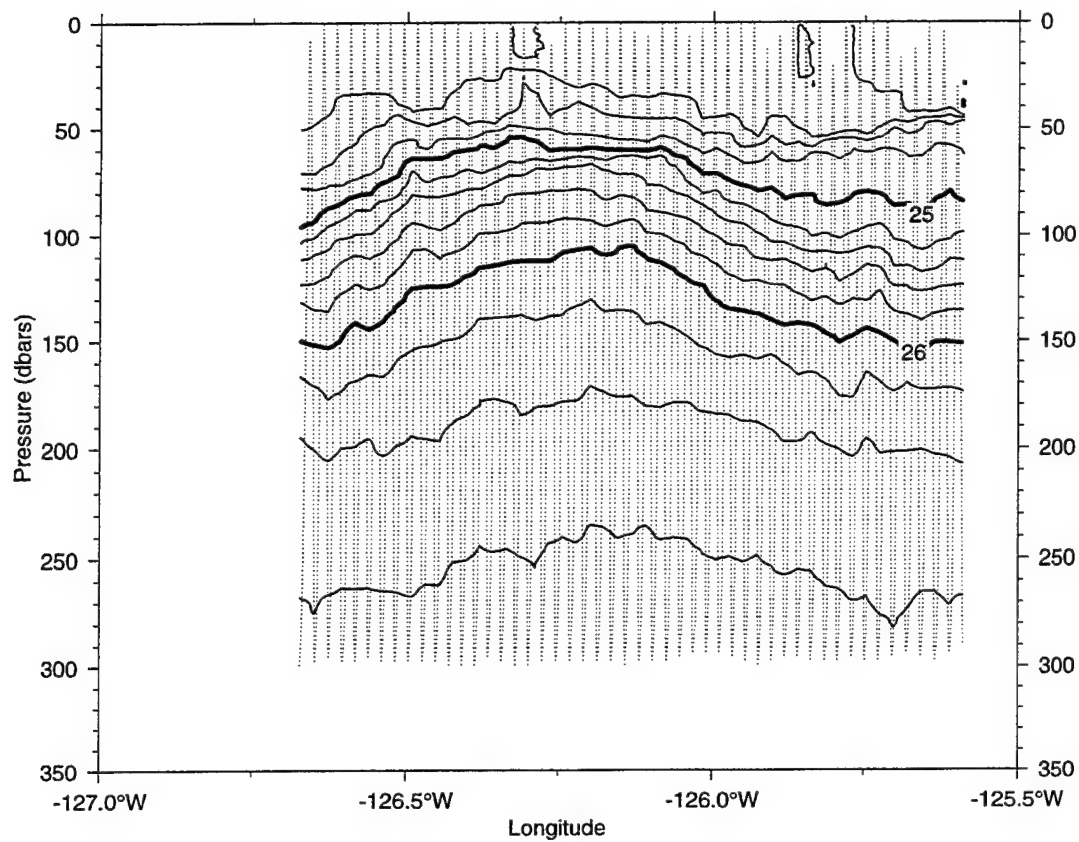
Small Scale Survey 1, Line 05, 37.78 °N, 7/1/93 - 7/1/93, Sigma-t (kg/m³)



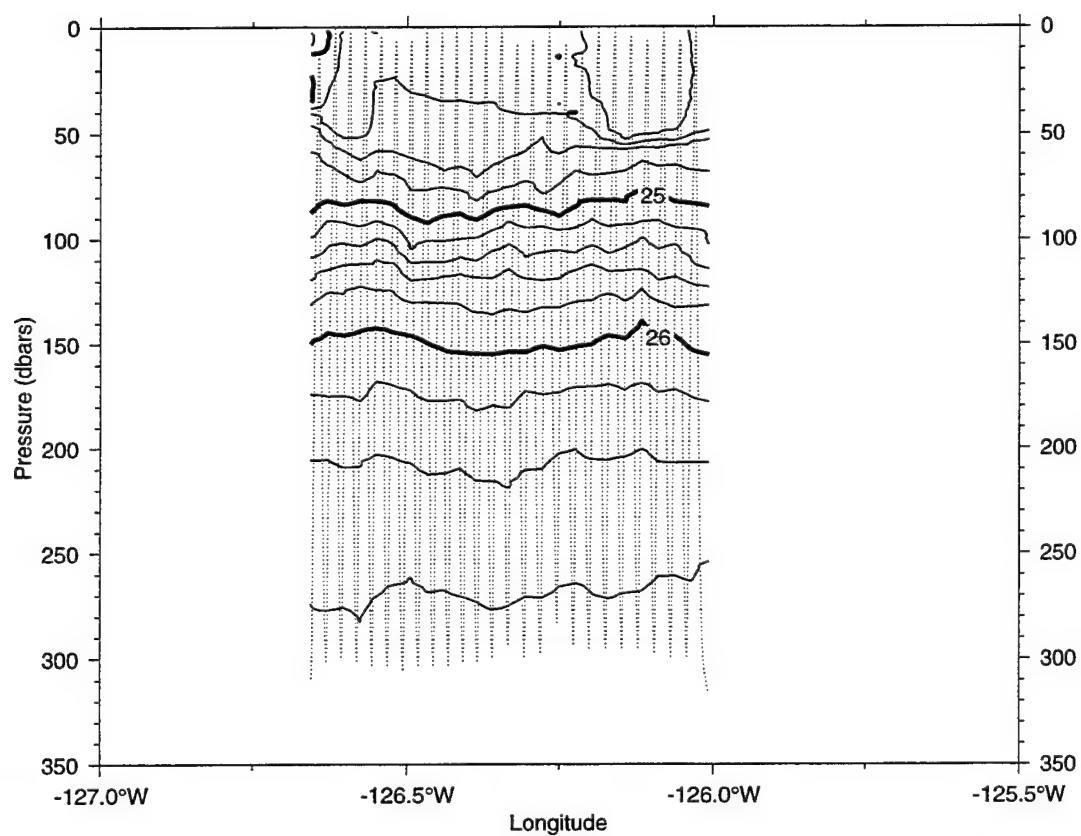
Small Scale Survey 1, Line 06, 37.69 °N, 7/1/93 - 7/2/93, Sigma-t (kg/m³)



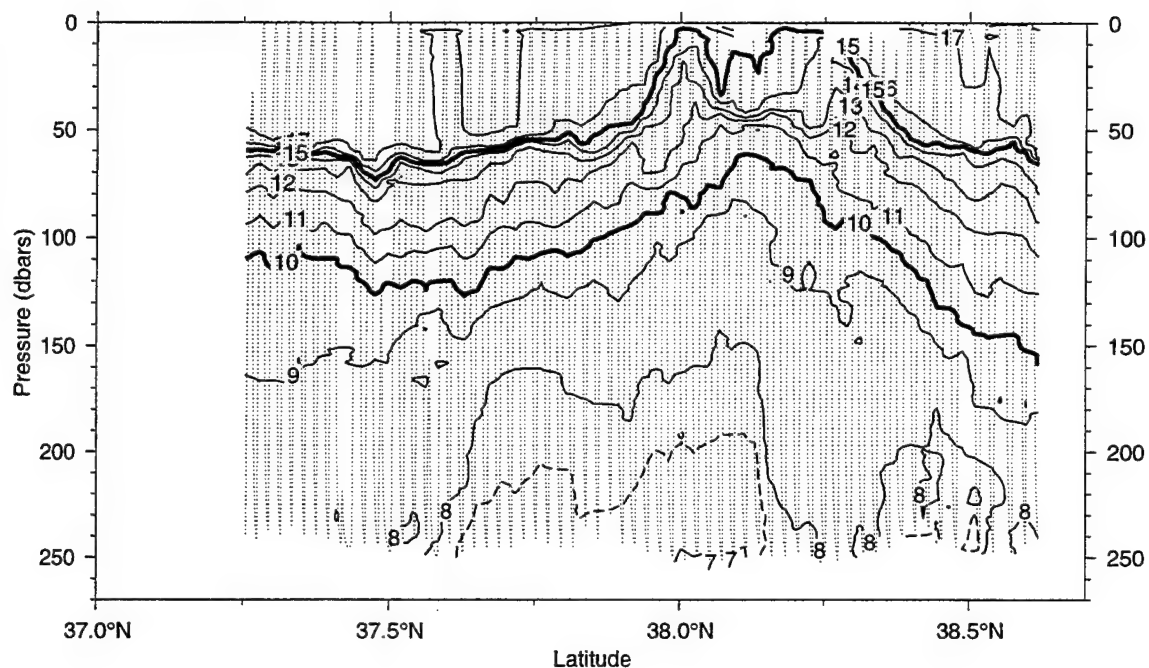
Small Scale Survey 1, Line 07, 37.60 °N, 7/2/93 - 7/2/93, Sigma-t (kg/m³)



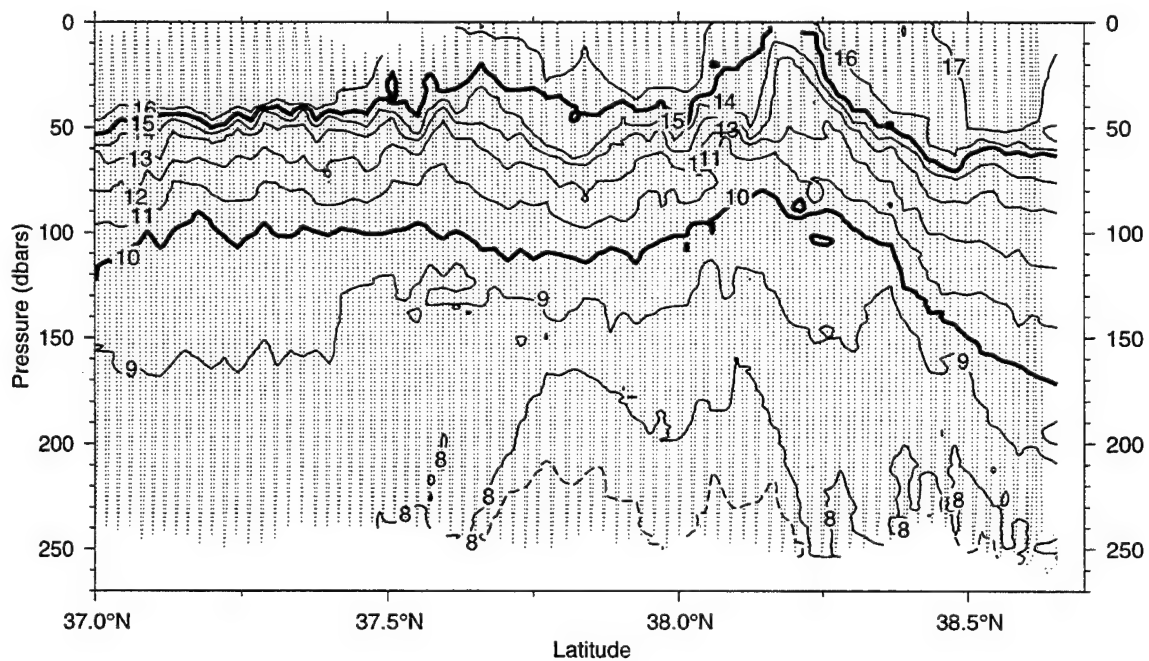
Small Scale Survey 1, Line 08, 37.51 °N, 7/2/93 - 7/2/93, Sigma-t (kg/m³)



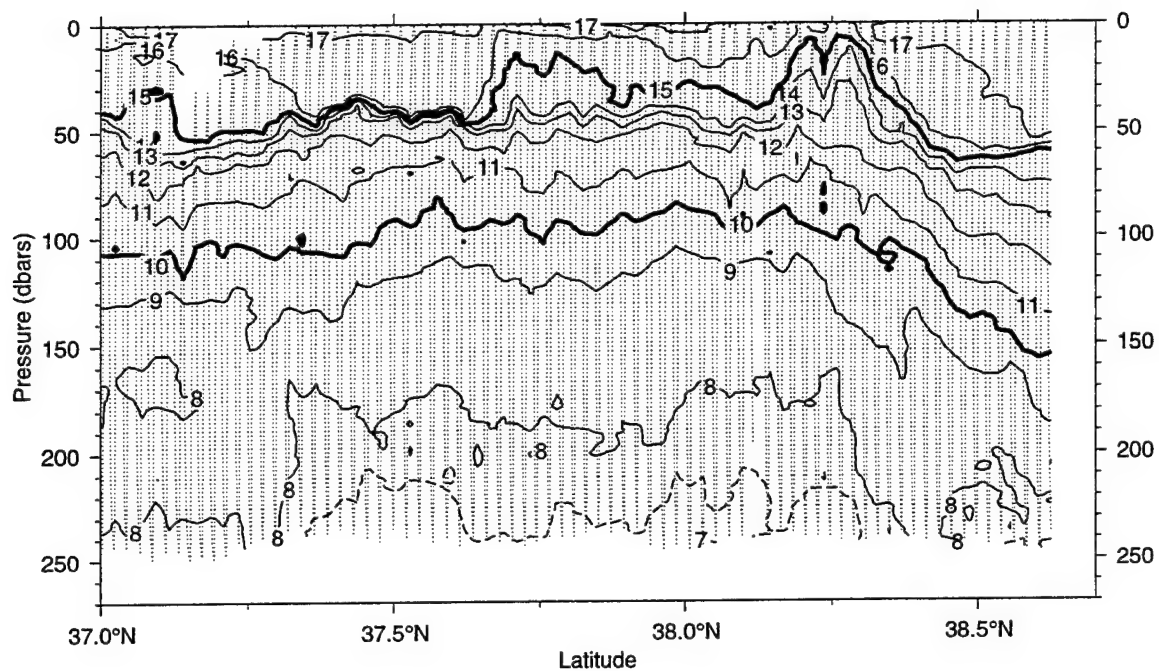
Small Scale Survey 3, Line a, 126.00 °W, 9/1/93 - 9/2/93, Temperature(°C)



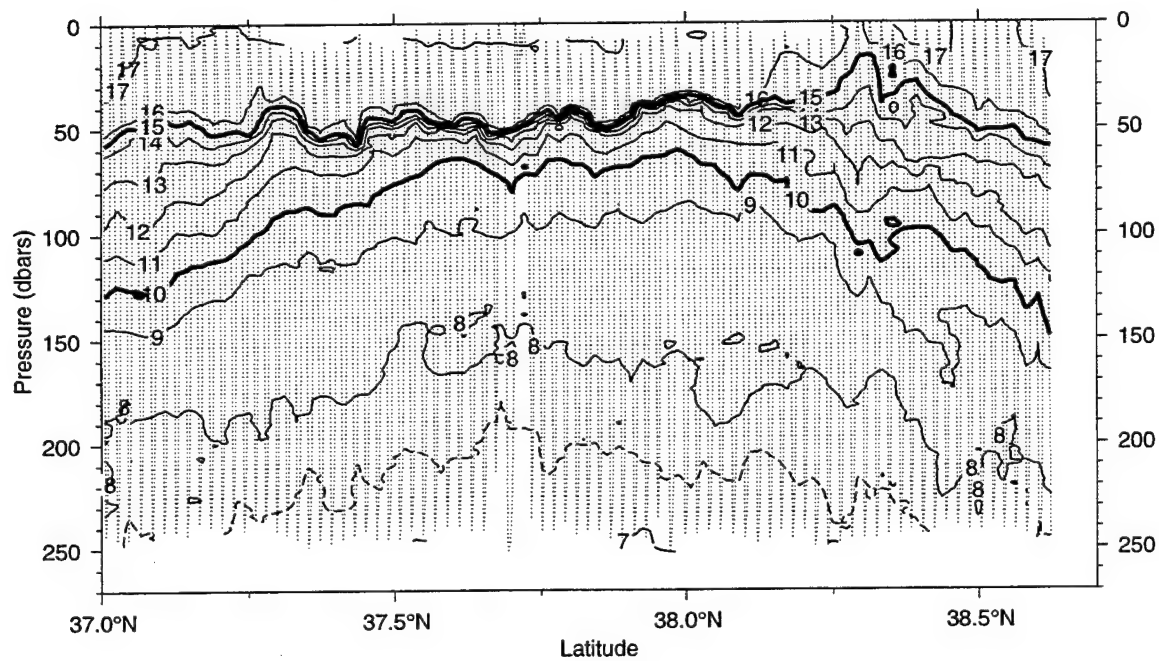
Small Scale Survey 3, Line b, 126.34 °W, 9/2/93 - 9/2/93, Temperature(°C)



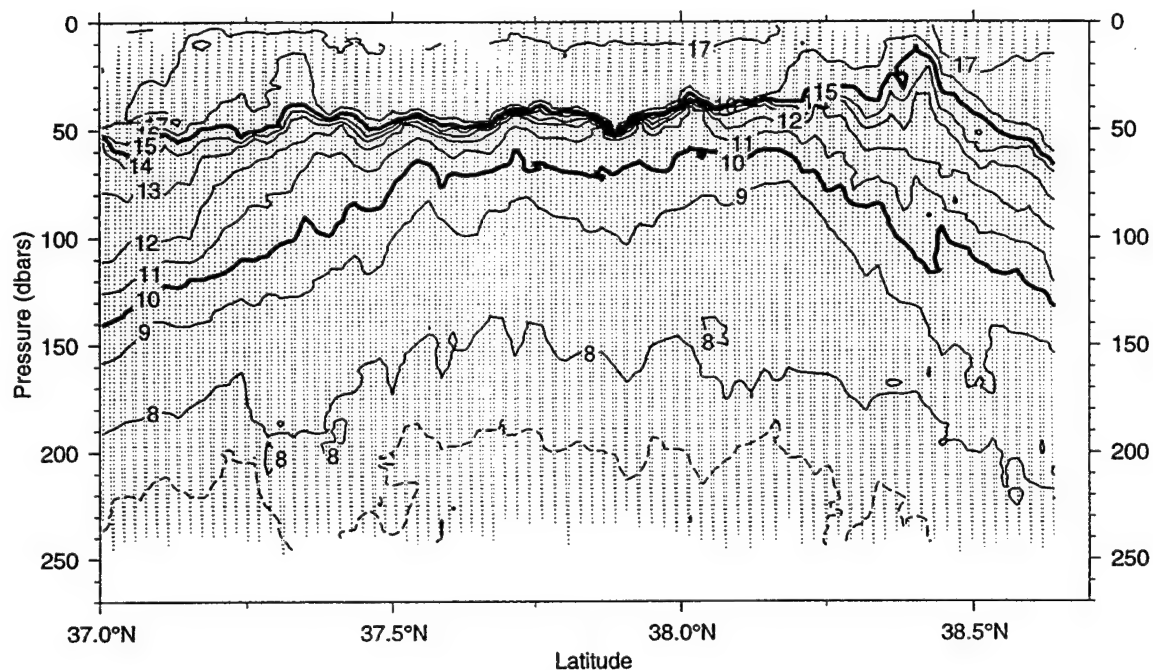
Small Scale Survey 3, Line c, 126.66 °W, 9/2/93 - 9/3/93, Temperature(°C)



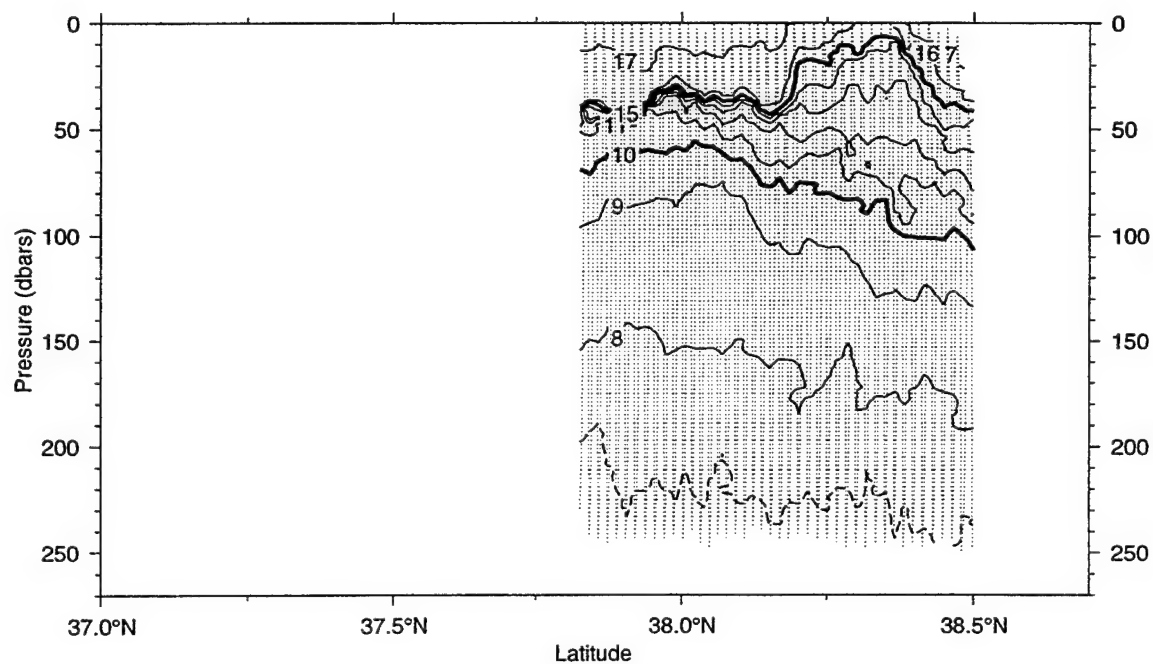
Small Scale Survey 3, Line d, 127.00 °W, 9/3/93 - 9/3/93, Temperature(°C)



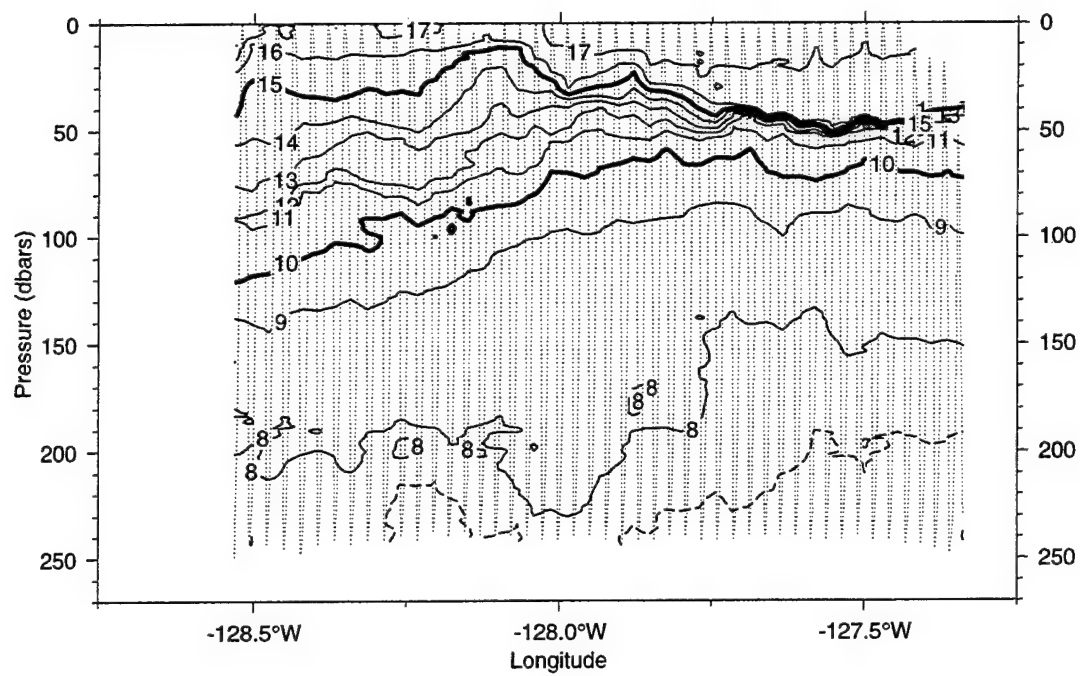
Small Scale Survey 3, Line e, 127.34 °W, 9/4/93 - 9/4/93, Temperature(°C)



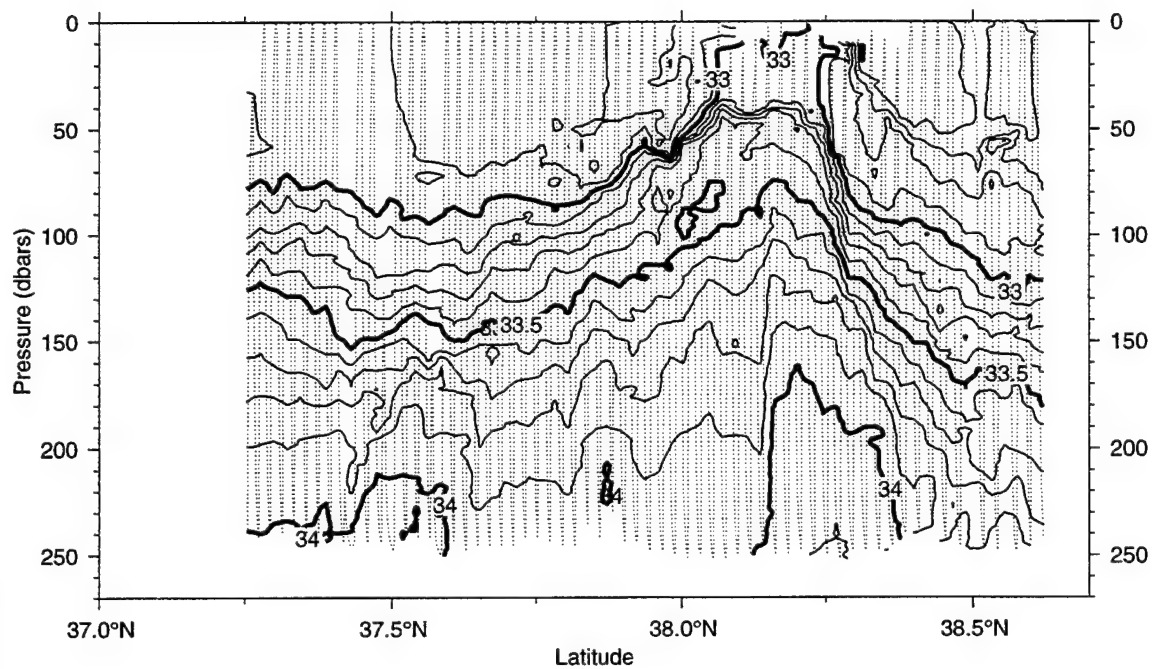
Small Scale Survey 3, Line f, 127.66 °W, 9/4/93 - 9/4/93, Temperature(°C)



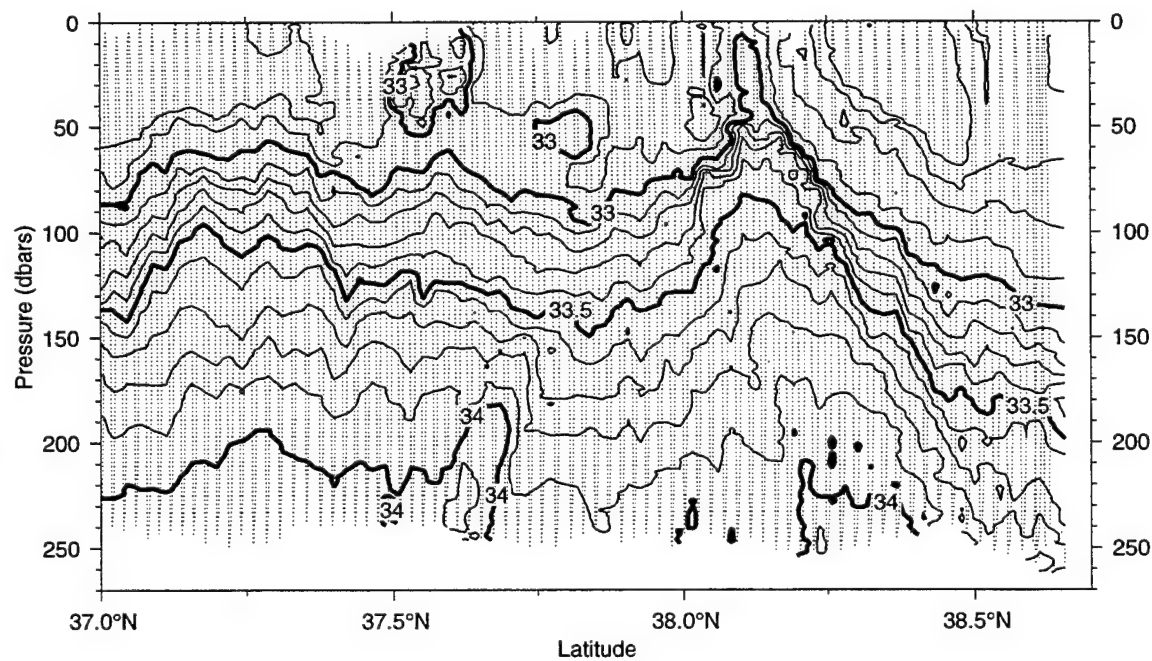
Small Scale Survey 3, Line g, 37.84 °N, 9/4/93 - 9/5/93, Temperature(°C)



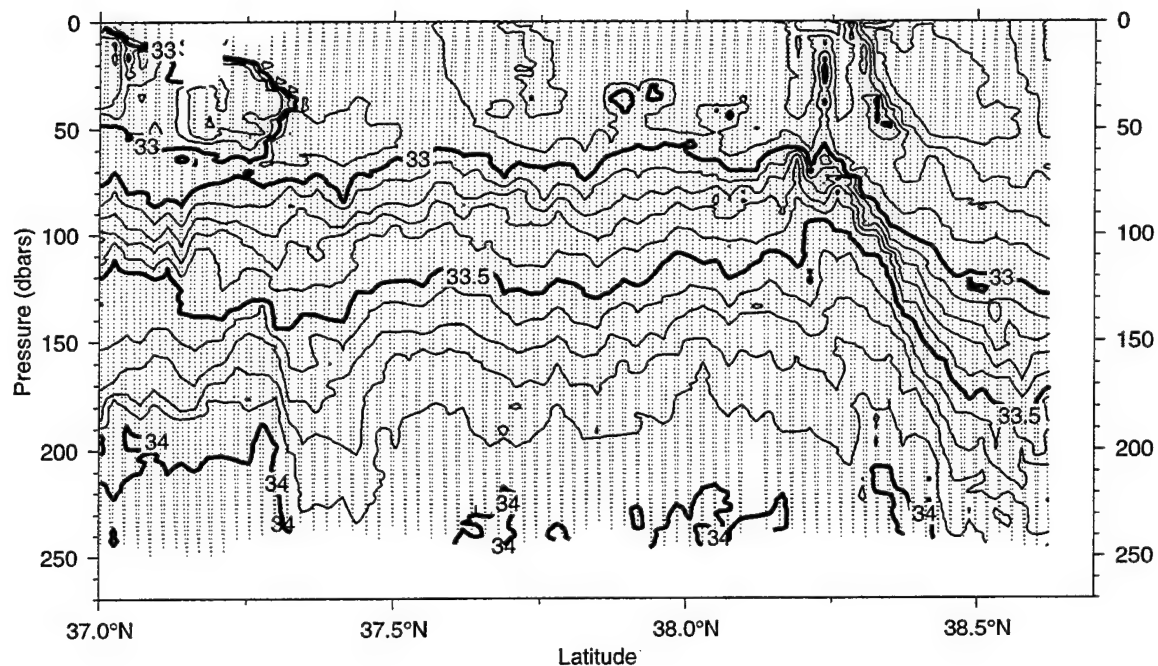
Small Scale Survey 3, Line a, 126.00 °W, 9/1/93 - 9/2/93, Salinity



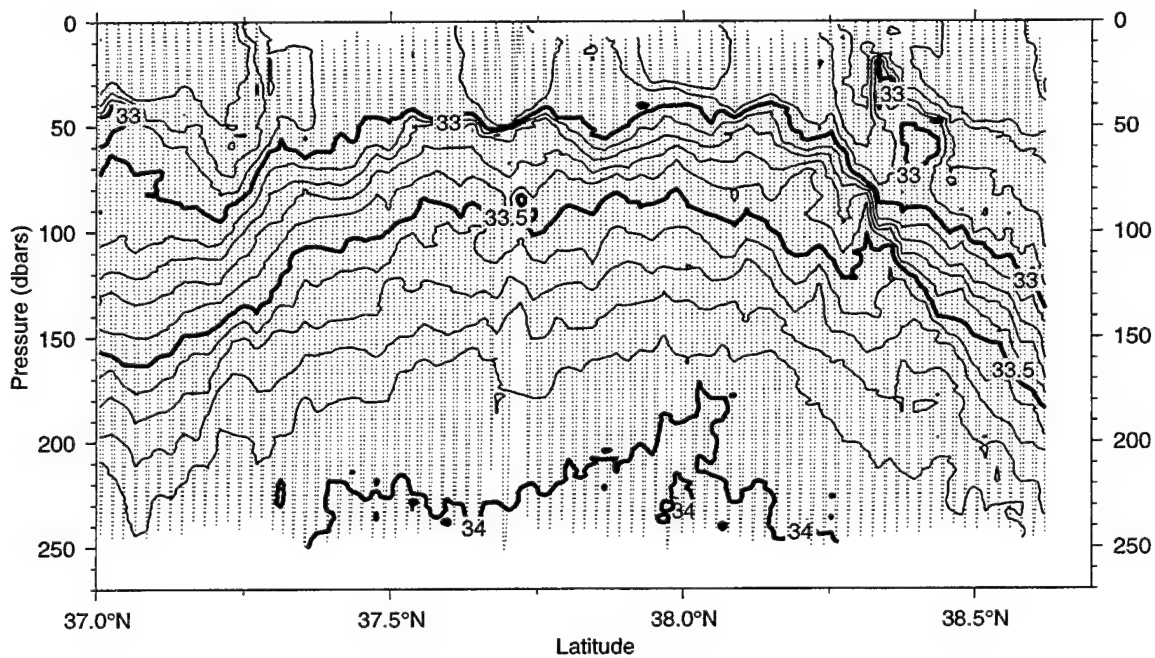
Small Scale Survey 3, Line b, 126.34 °W, 9/2/93 - 9/2/93, Salinity



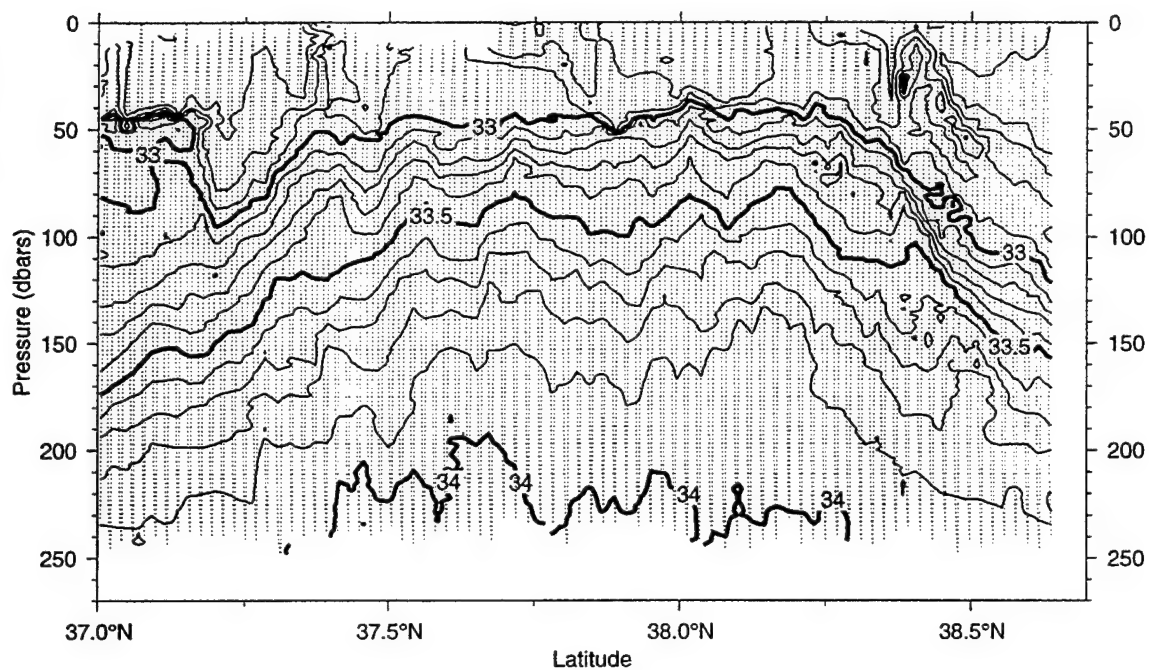
Small Scale Survey 3, Line c, 126.66 °W, 9/2/93 - 9/3/93, Salinity



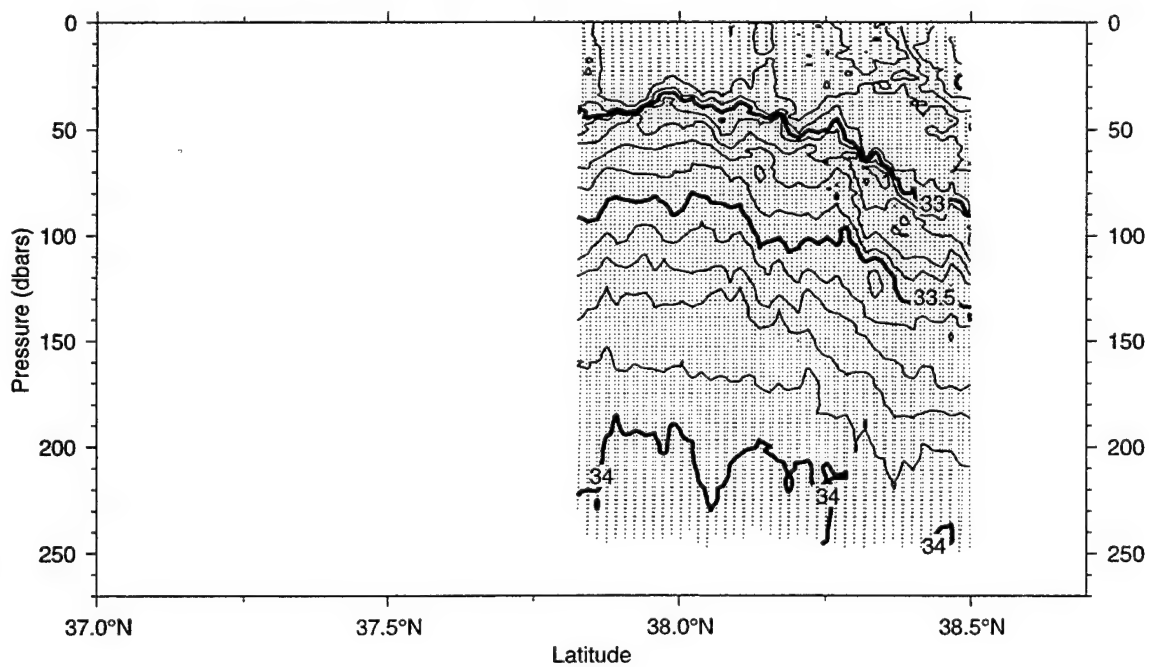
Small Scale Survey 3, Line d, 127.00 °W, 9/3/93 - 9/3/93, Salinity



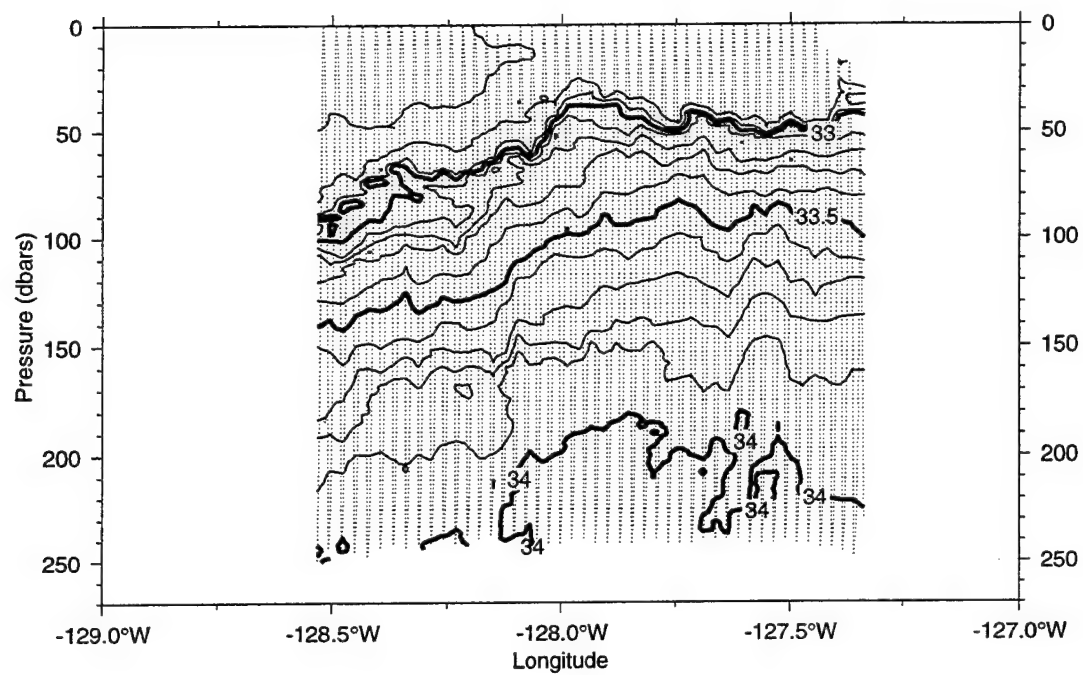
Small Scale Survey 3, Line e, 127.34 °W, 9/4/93 - 9/4/93, Salinity



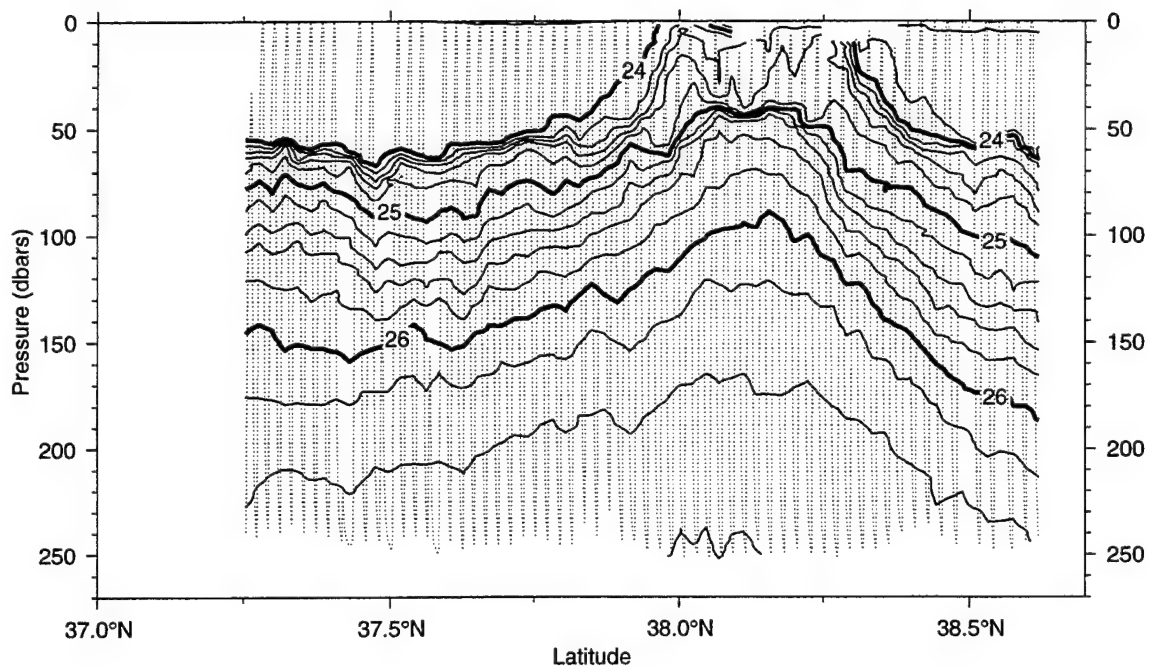
Small Scale Survey 3, Line f, 127.66 °W, 9/4/93 - 9/4/93, Salinity



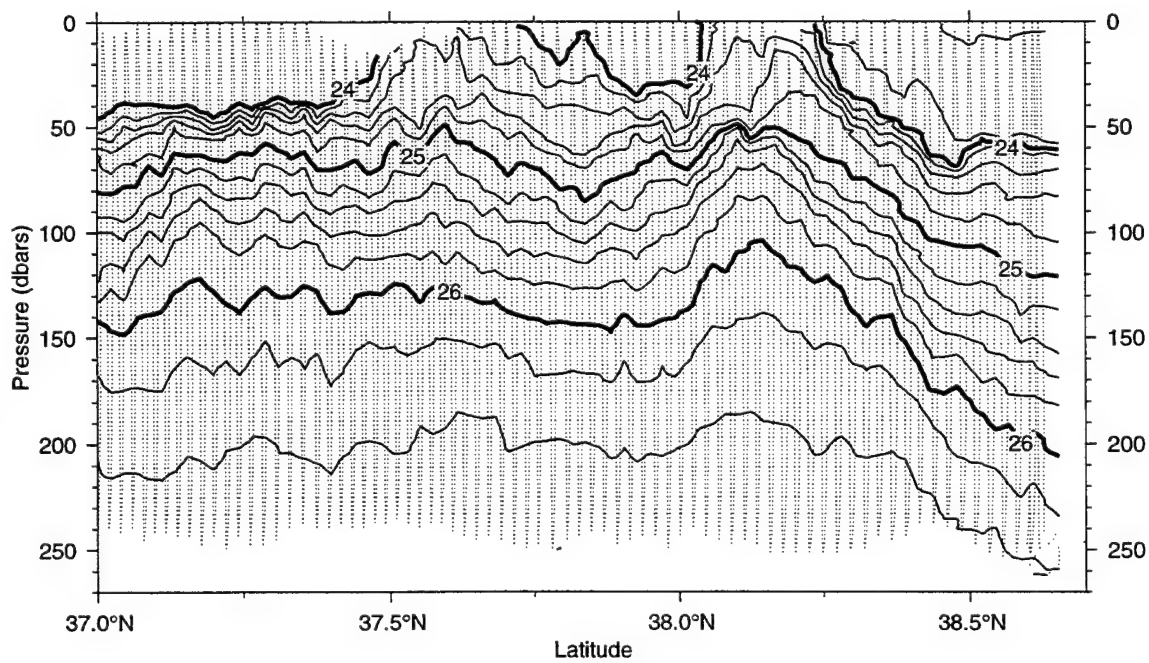
Small Scale Survey 3, Line g, 37.84 °N, 9/4/93 - 9/5/93, Salinity



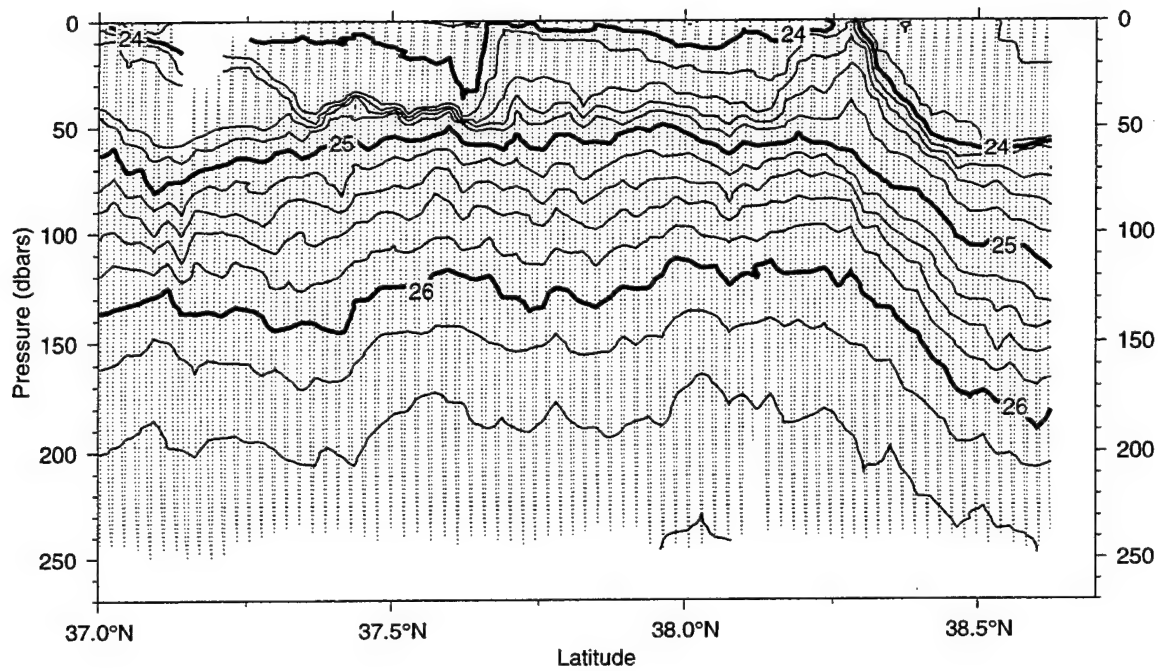
Small Scale Survey 3, Line a, 126.00 °W, 9/1/93 - 9/2/93, Sigma-t (kg/m^3)



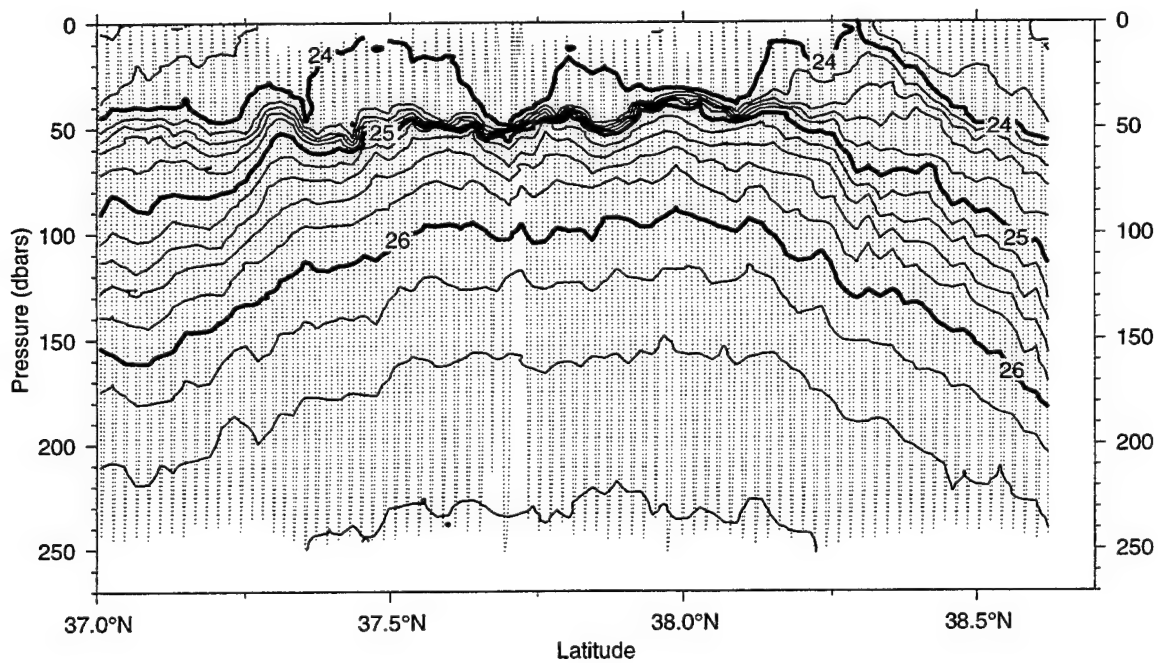
Small Scale Survey 3, Line b, 126.34 °W, 9/2/93 - 9/2/93, Sigma-t (kg/m^3)



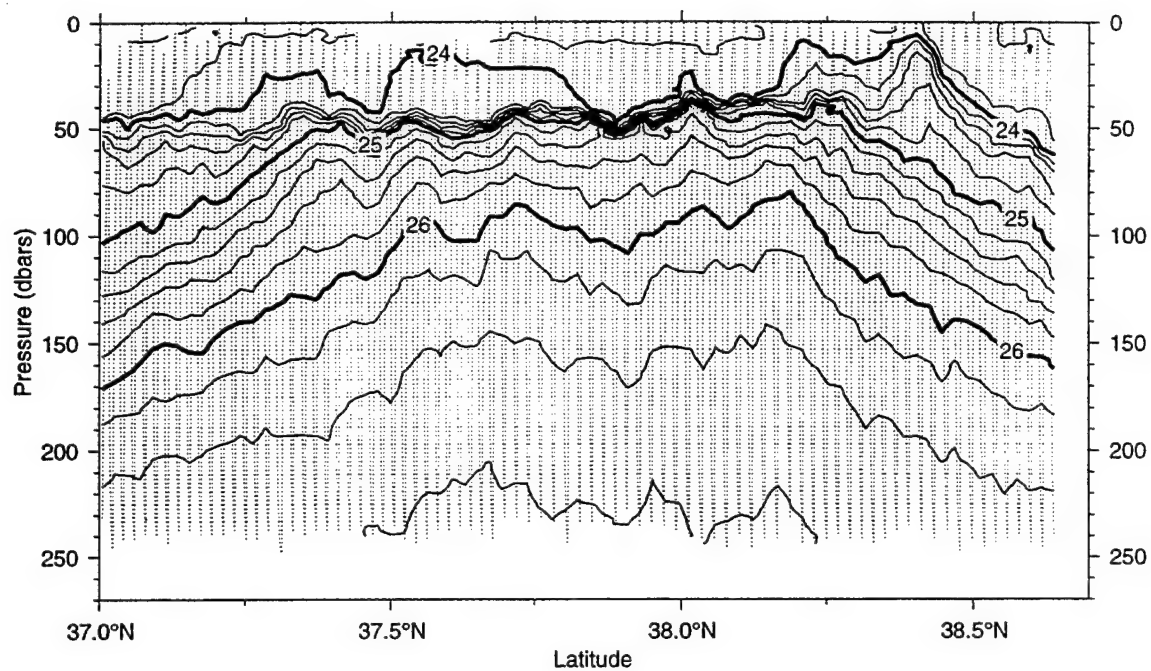
Small Scale Survey 3, Line c, 126.66 °W, 9/2/93 - 9/3/93, Sigma-t (kg/m³)



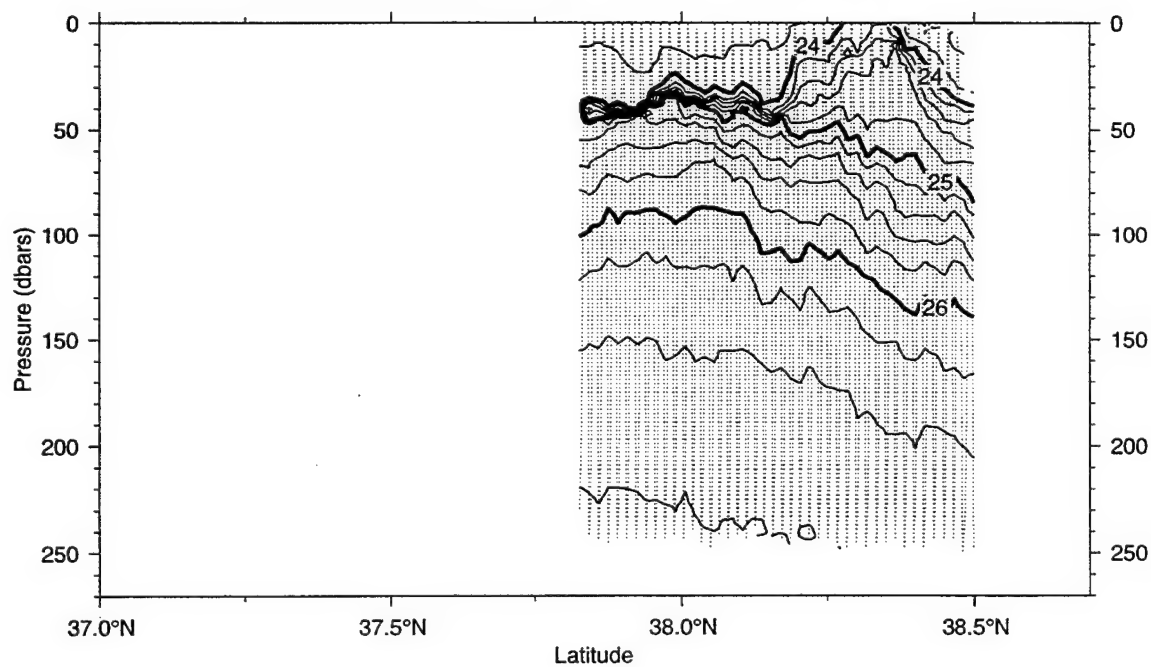
Small Scale Survey 3, Line d, 127.00 °W, 9/3/93 - 9/3/93, Sigma-t (kg/m³)



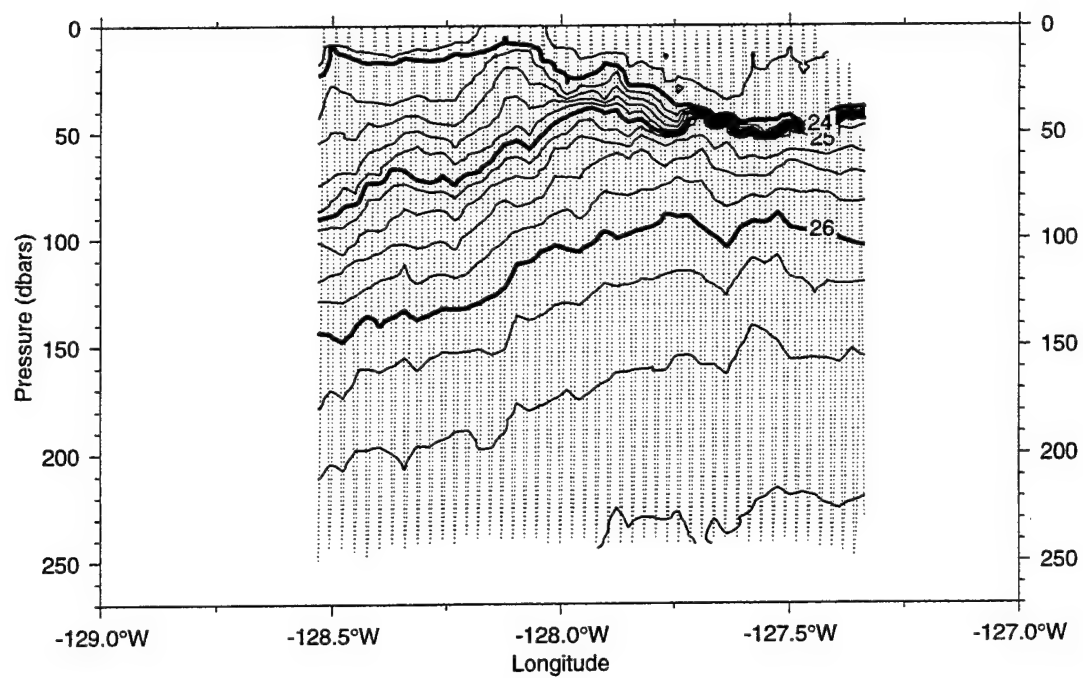
Small Scale Survey 3, Line e, 127.34 °W, 9/4/93 - 9/4/93, Sigma-t (kg/m^3)



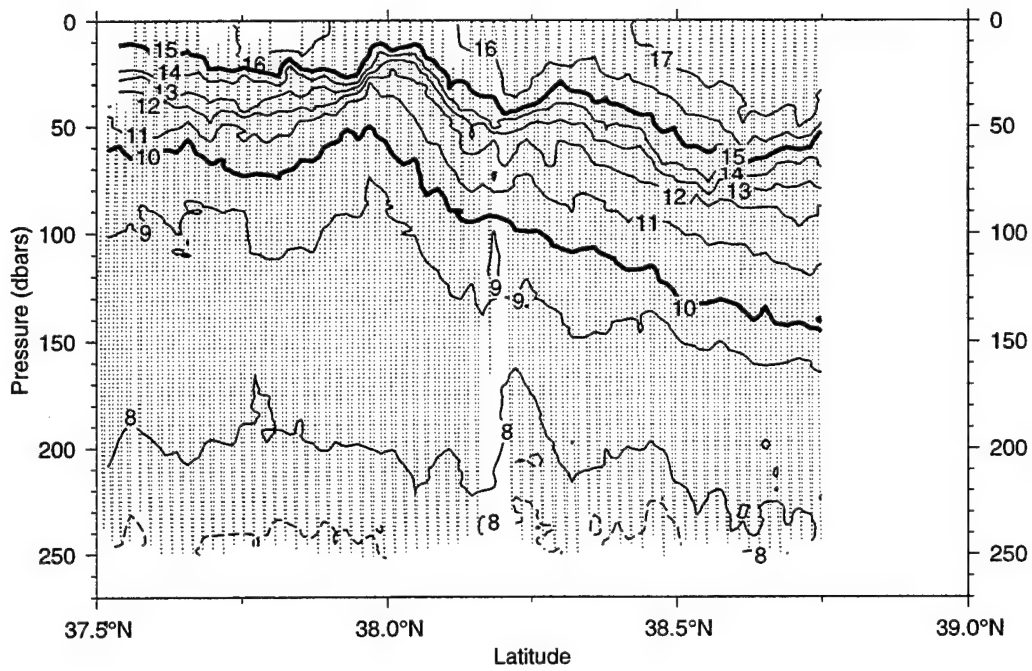
Small Scale Survey 3, Line f, 127.66 °W, 9/4/93 - 9/4/93, Sigma-t (kg/m^3)



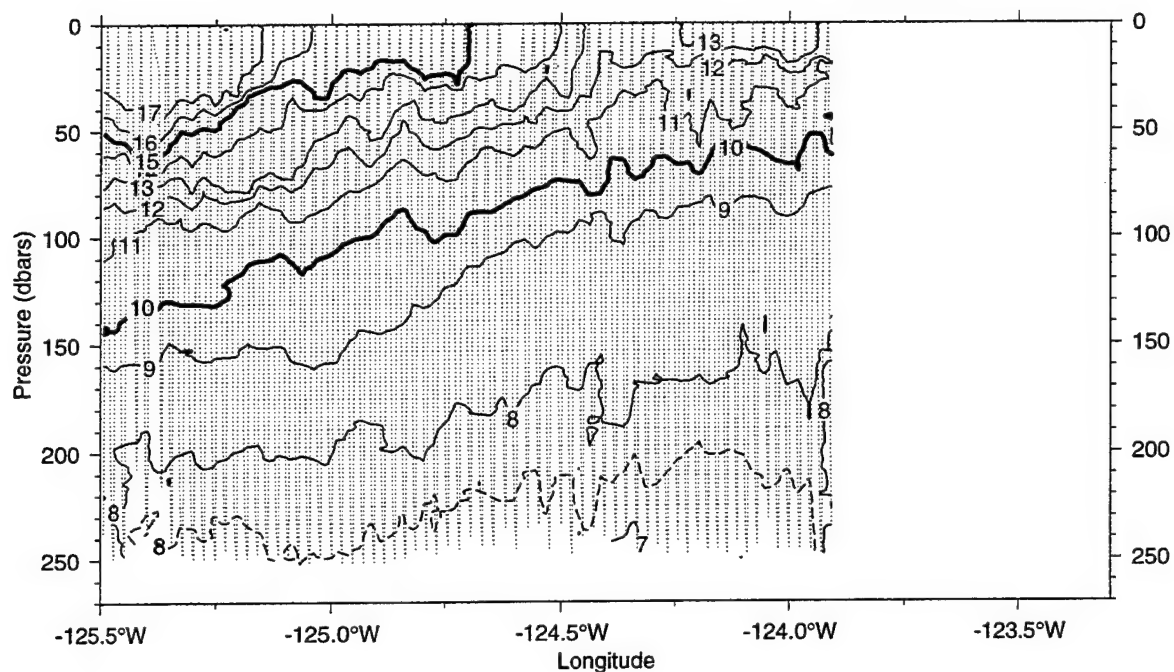
Small Scale Survey 3, Line g, 37.84 °N, 9/4/93 - 9/5/93, Sigma-t (kg/m³)



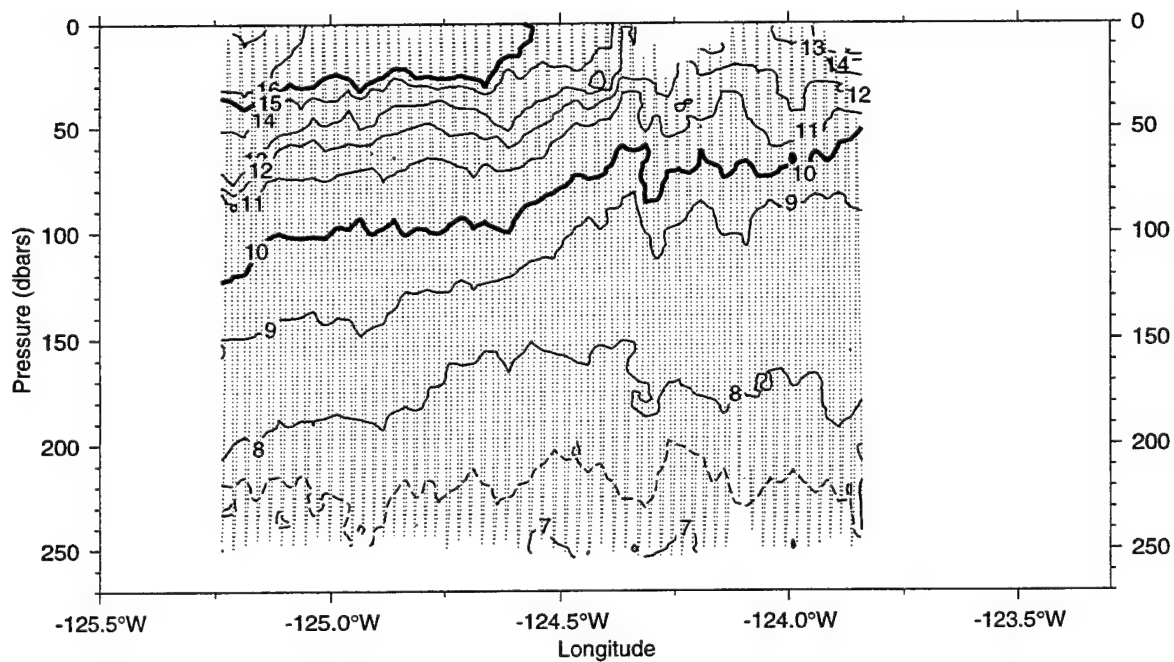
Small Scale Survey 4, Line 00, 125.50 °W, 9/9/93 - 9/10/93, Temperature(°C)



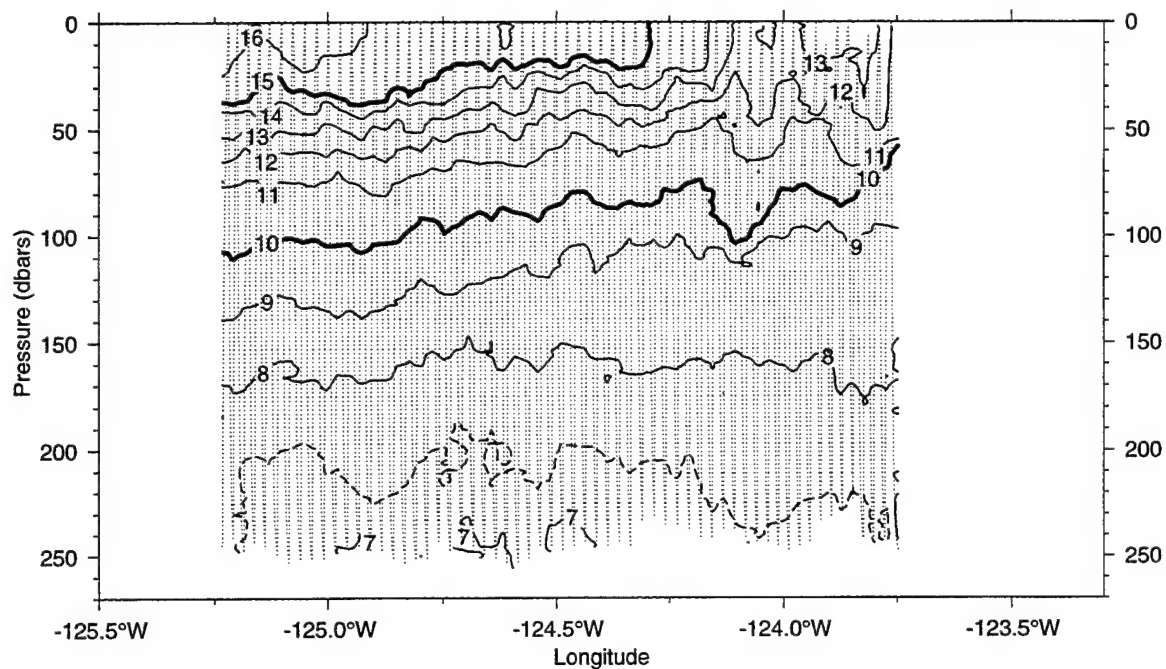
Small Scale Survey 4, Line 01, 38.75 °N, 9/10/93 - 9/10/93, Temperature(°C)



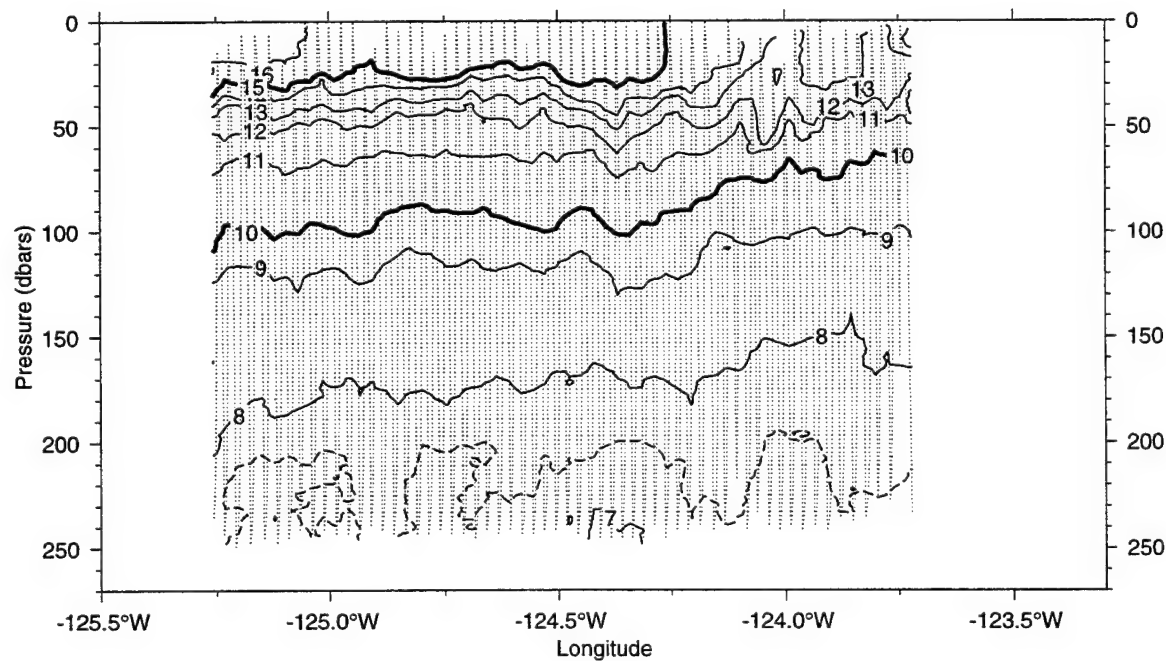
Small Scale Survey 4, Line 02, 38.63 °N, 9/10/93 - 9/10/93, Temperature(°C)



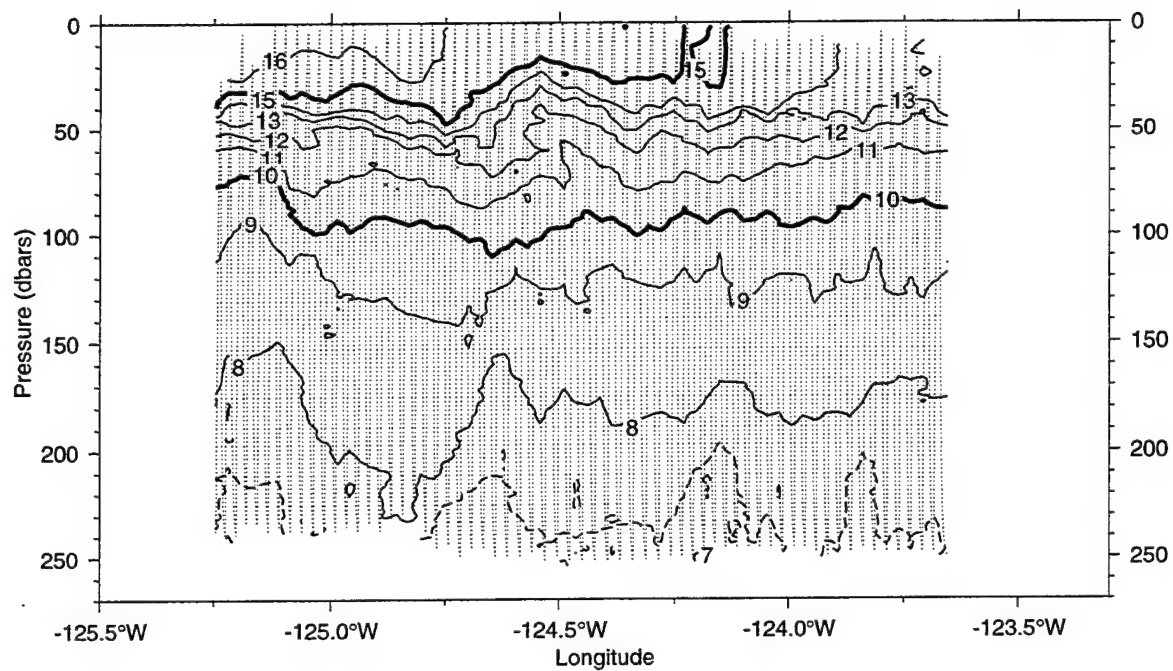
Small Scale Survey 4, Line 03, 38.49 °N, 9/10/93 - 9/11/93, Temperature(°C)



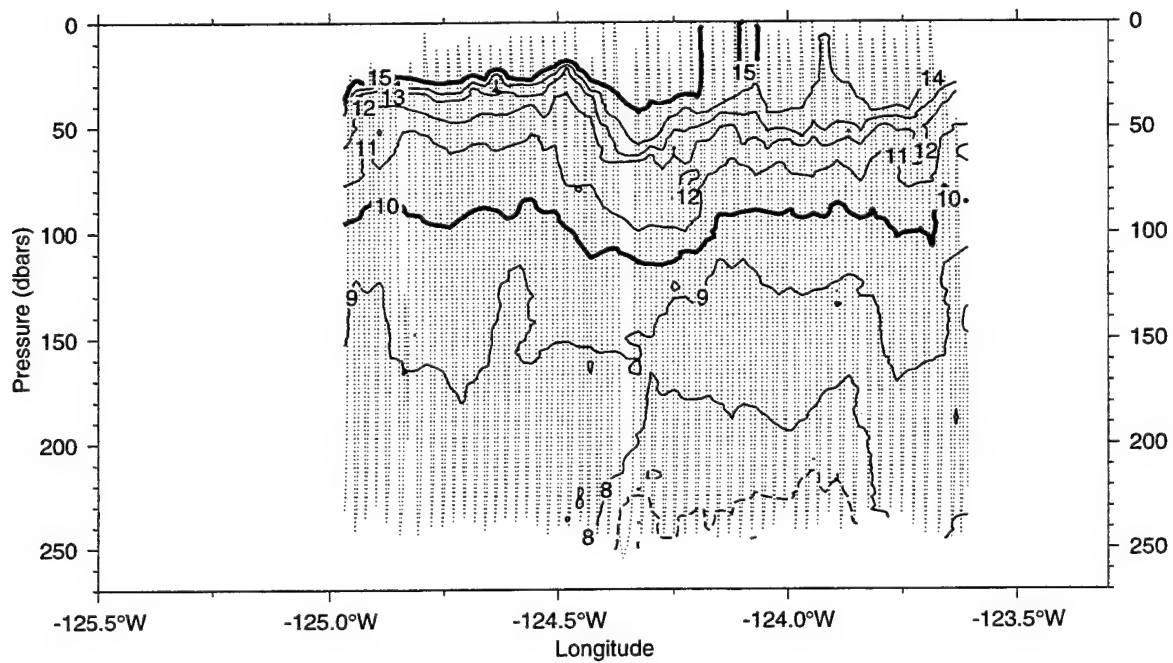
Small Scale Survey 4, Line 04, 38.37 °N, 9/11/93 - 9/11/93, Temperature(°C)



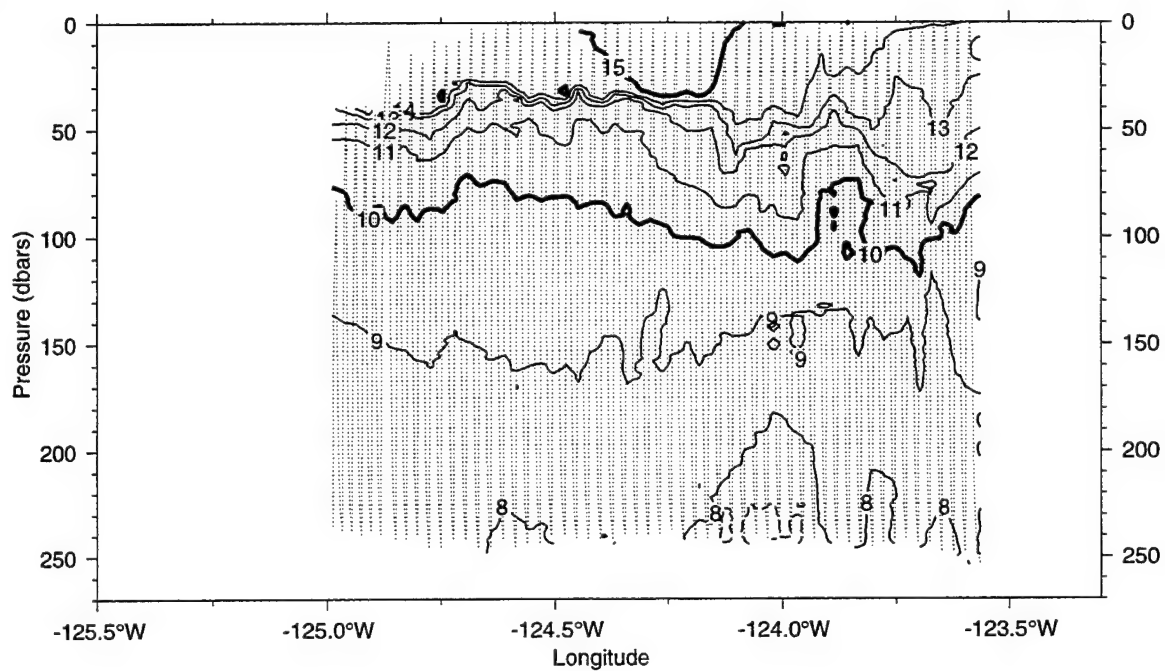
Small Scale Survey 4, Line 05, 38.25 °N, 9/11/93 - 9/12/93, Temperature(°C)



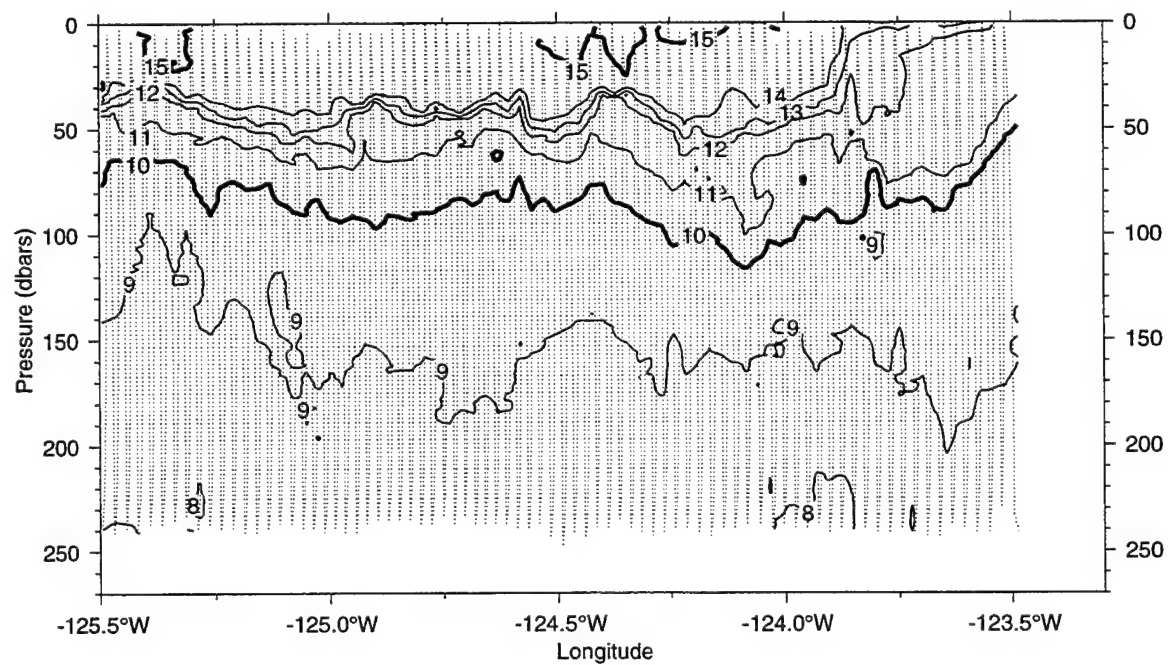
Small Scale Survey 4, Line 06, 38.13 °N, 9/12/93 - 9/12/93, Temperature(°C)



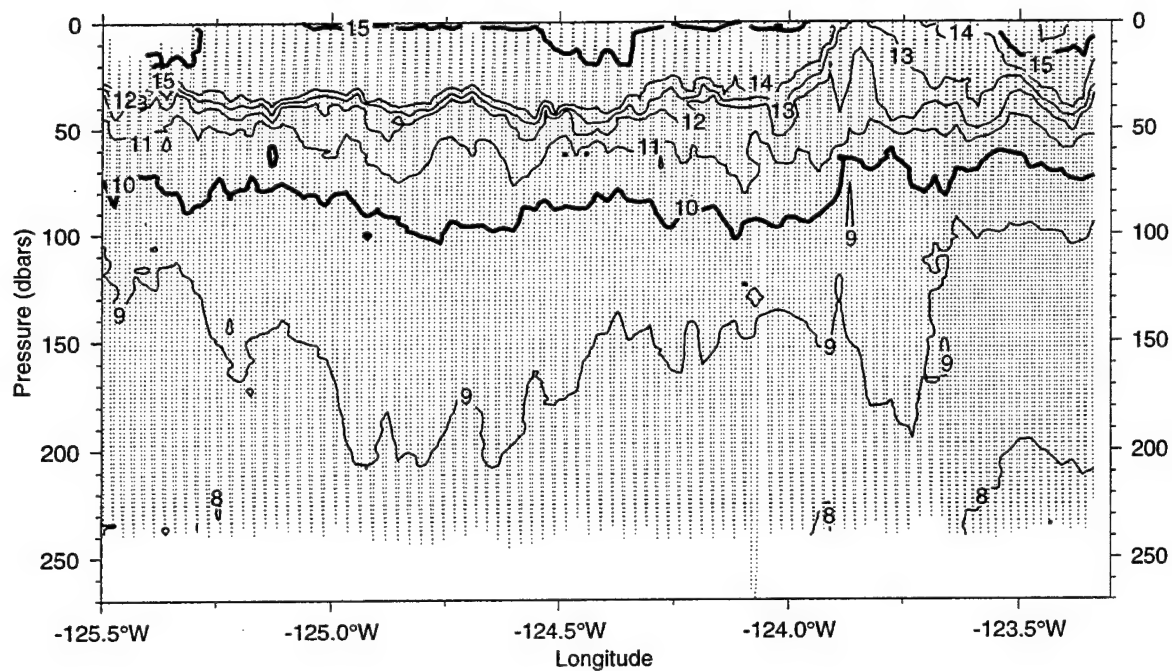
Small Scale Survey 4, Line 07, 38.00 °N, 9/13/93 - 9/14/93, Temperature(°C)



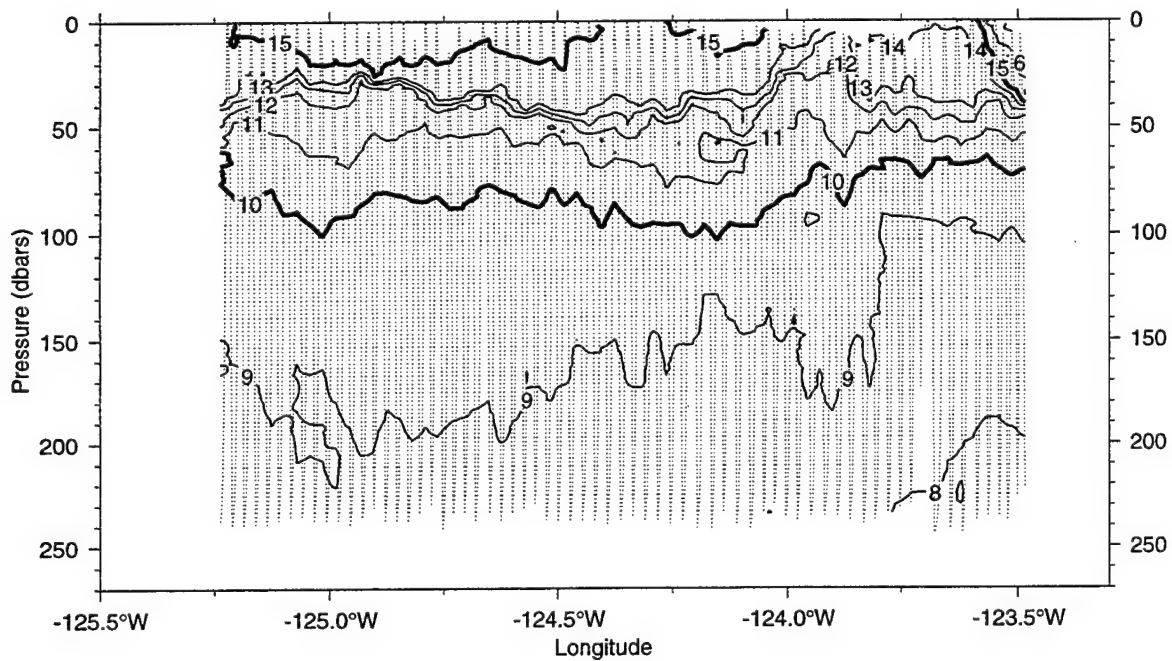
Small Scale Survey 4, Line 08, 37.87 °N, 9/14/93 - 9/14/93, Temperature(°C)



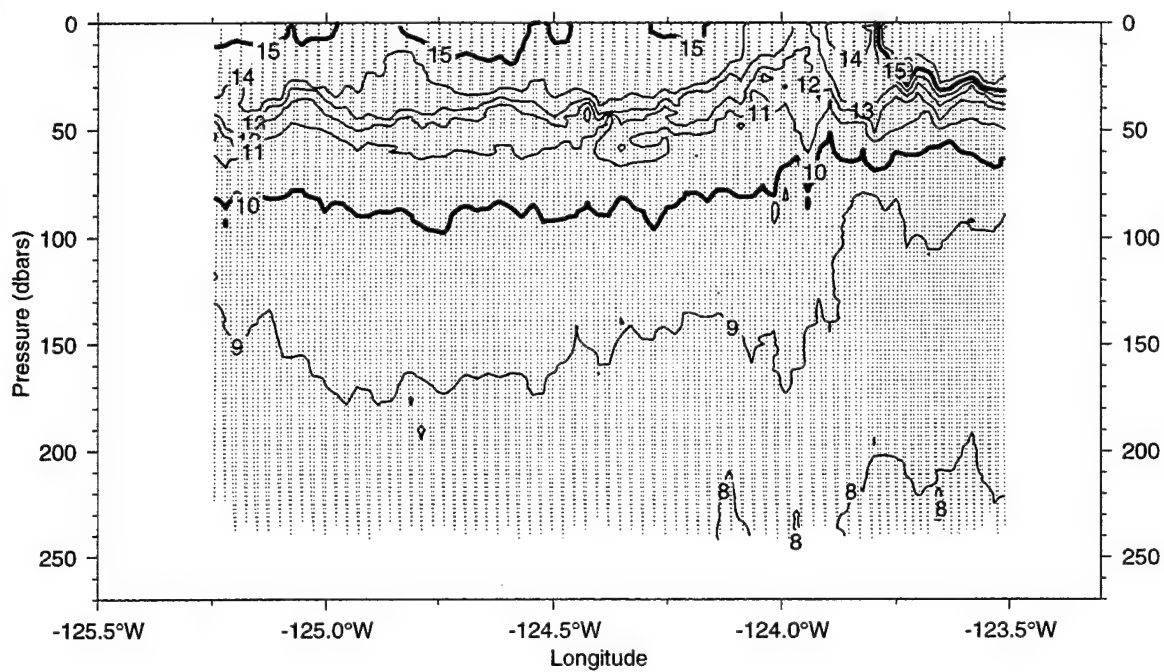
Small Scale Survey 4, Line 09, 37.72 °N, 9/14/93 - 9/15/93, Temperature(°C)



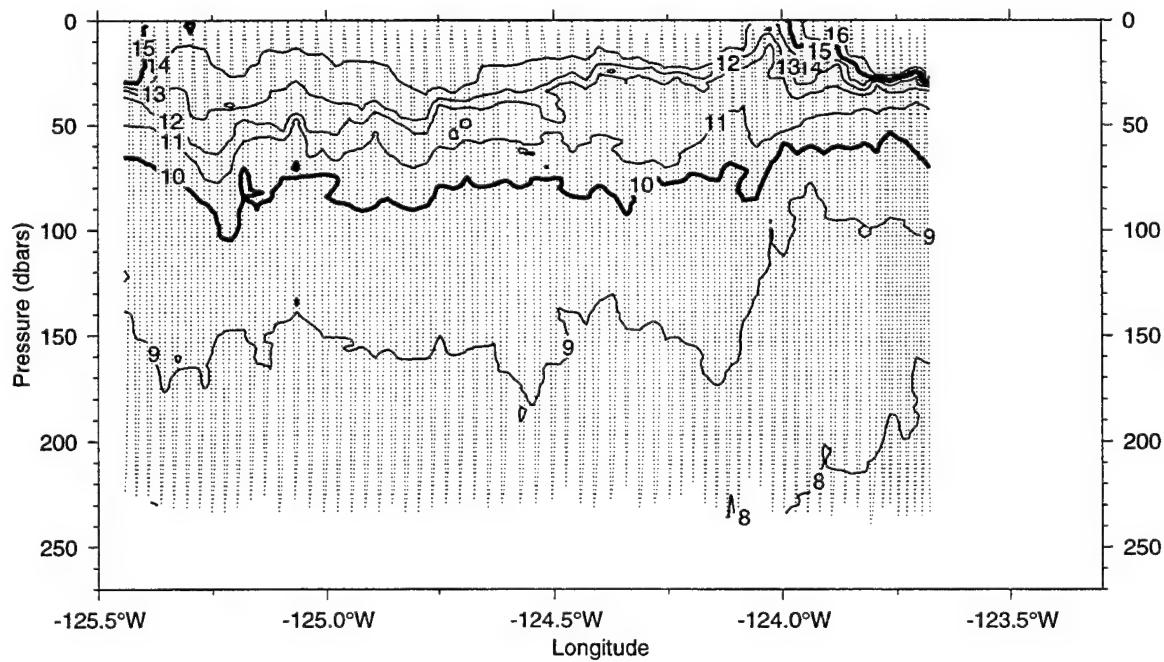
Small Scale Survey 4, Line 10, 37.62 °N, 9/15/93 - 9/15/93, Temperature(°C)



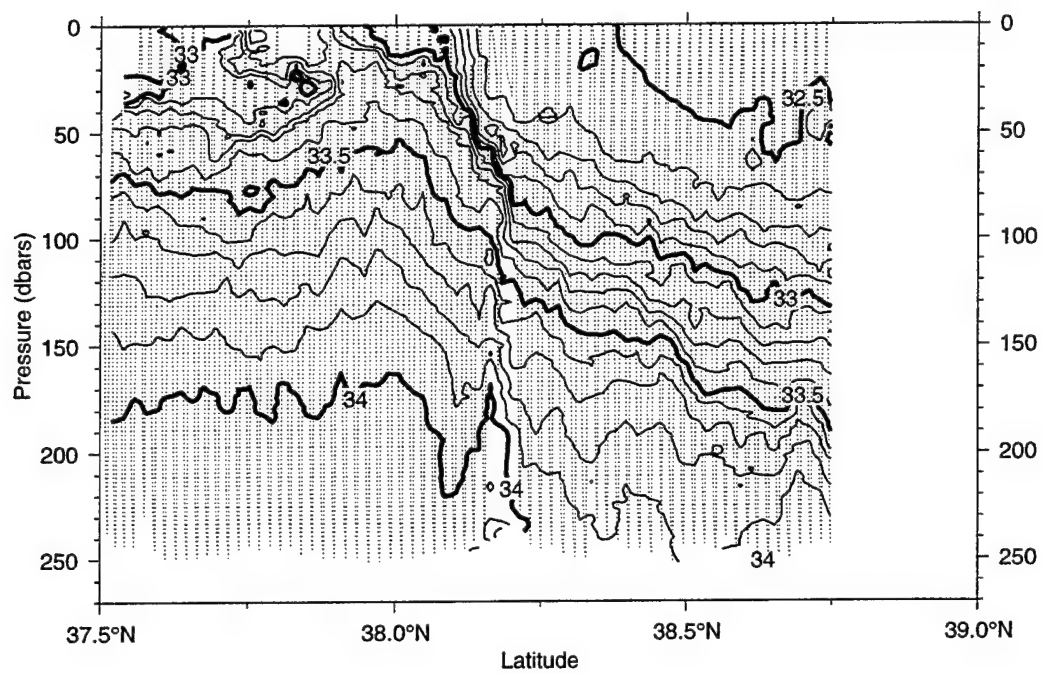
Small Scale Survey 4, Line 11, 37.47 °N, 9/15/93 - 9/16/93, Temperature(°C)



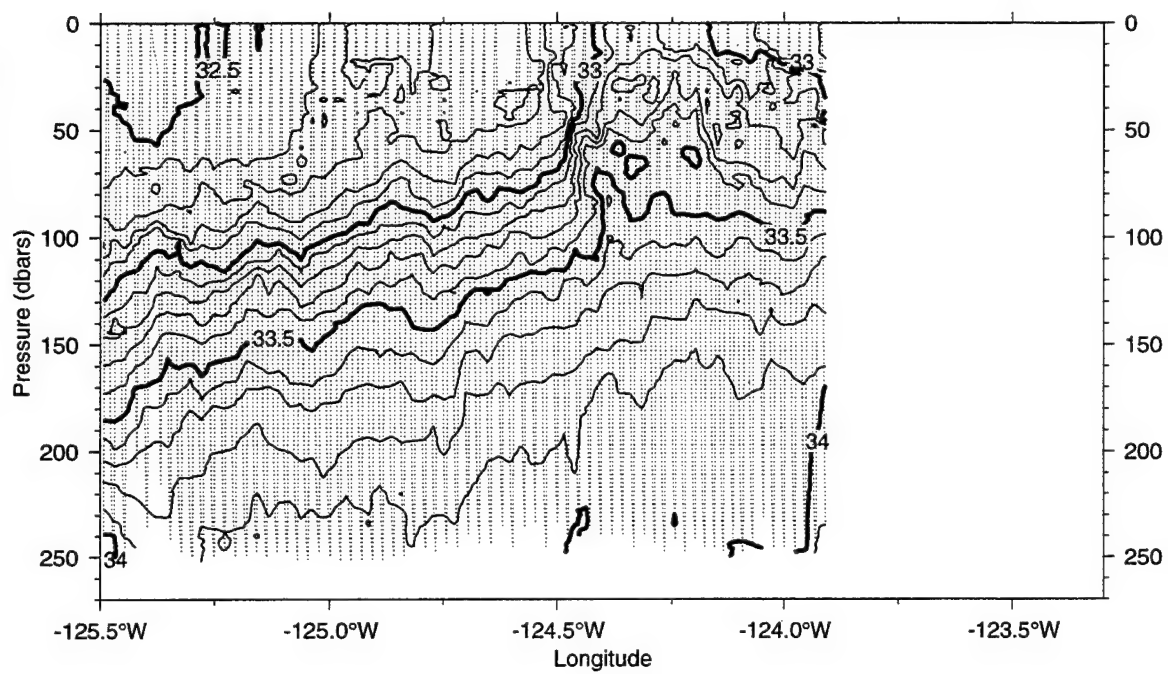
Small Scale Survey 4, Line 12, 37.37 °N, 9/16/93 - 9/16/93, Temperature(°C)



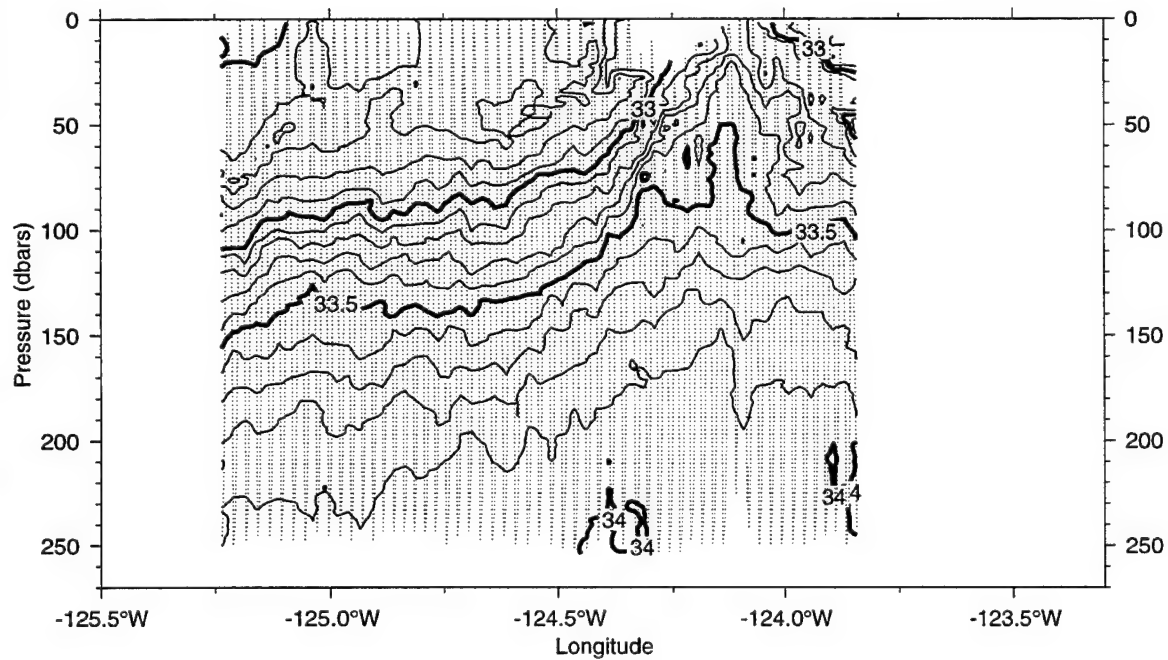
Small Scale Survey 4, Line 00, 125.50 °W, 9/9/93 - 9/10/93, Salinity



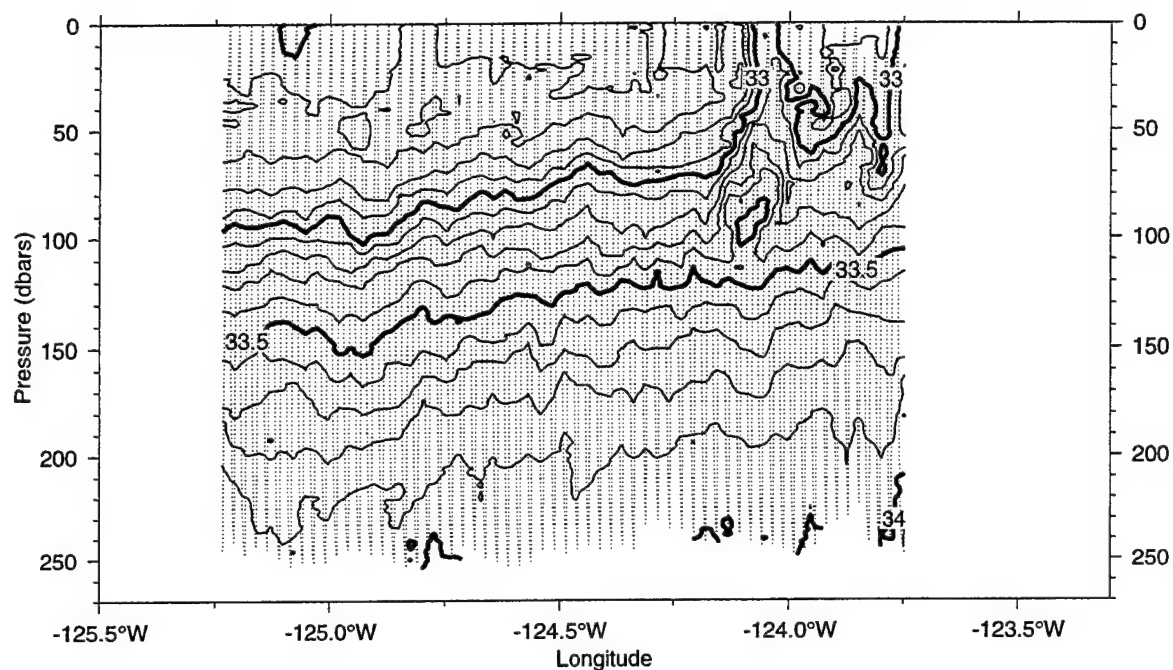
Small Scale Survey 4, Line 01, 38.75 °N, 9/10/93 - 9/10/93, Salinity



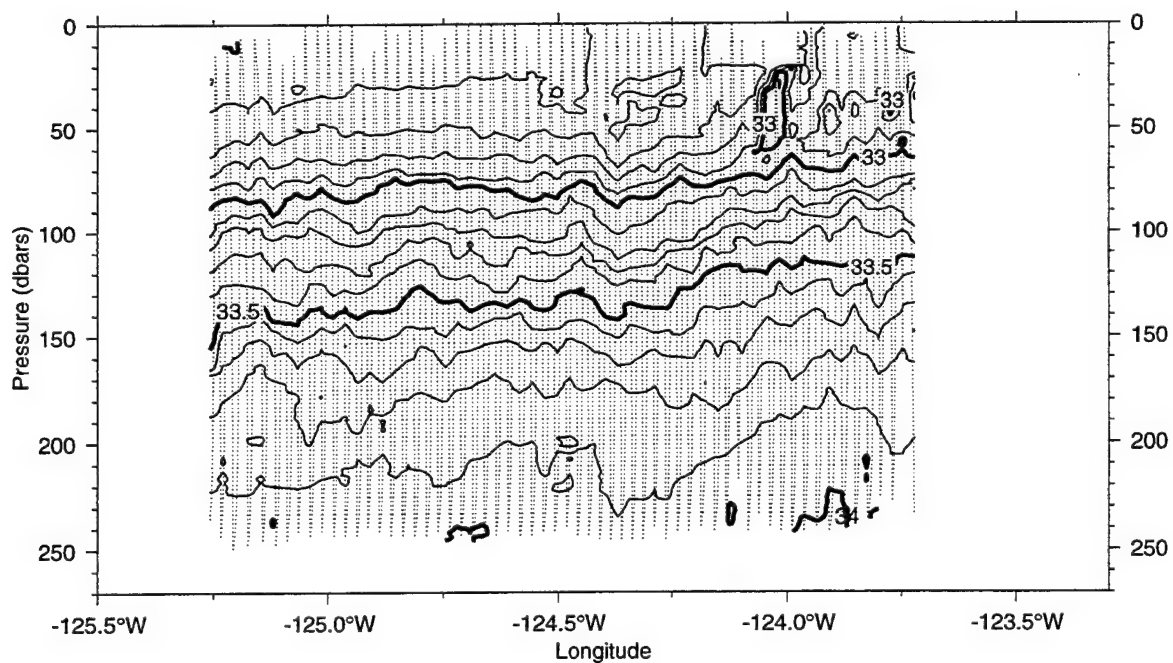
Small Scale Survey 4, Line 02, 38.63 °N, 9/10/93 - 9/10/93, Salinity



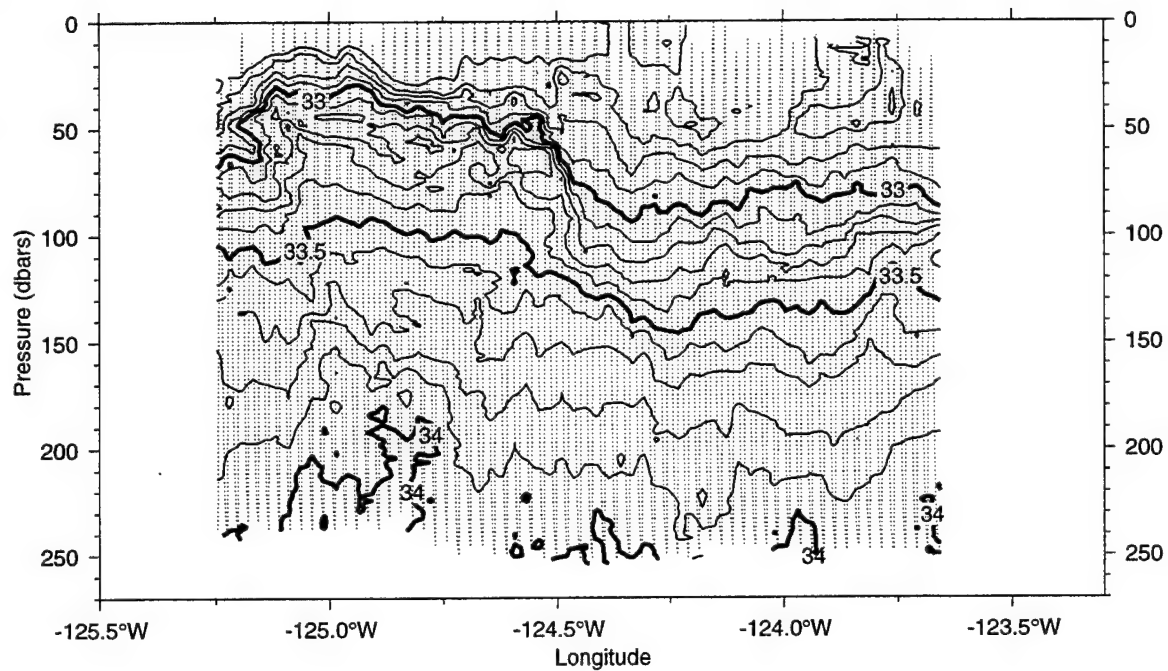
Small Scale Survey 4, Line 03, 38.49 °N, 9/10/93 - 9/11/93, Salinity



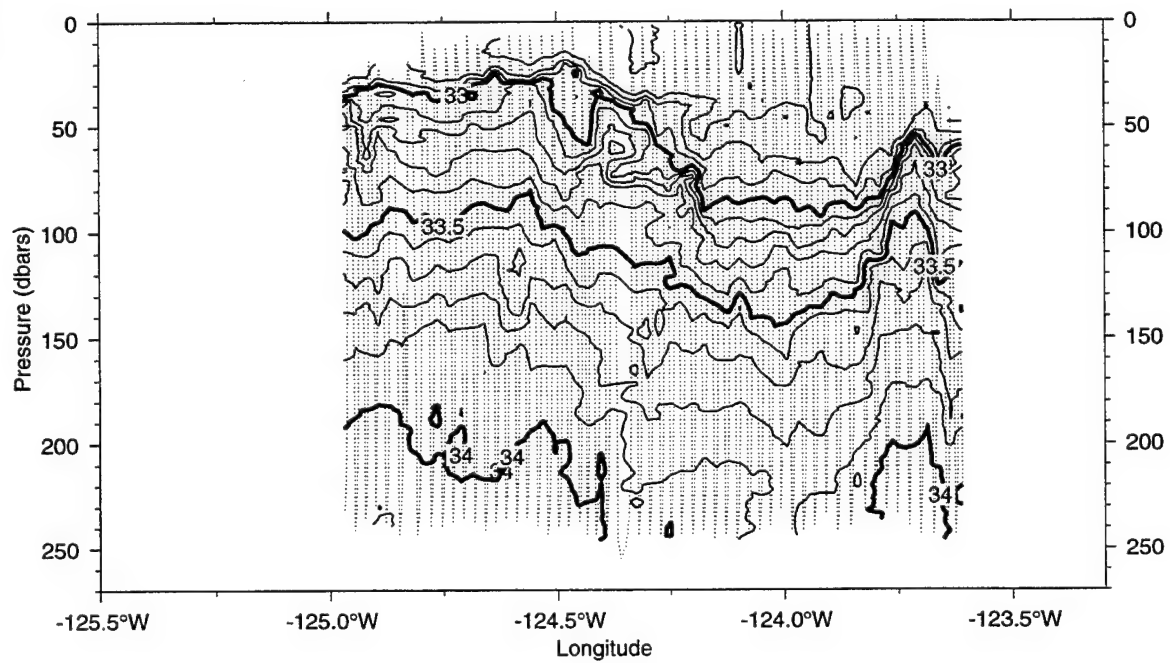
Small Scale Survey 4, Line 04, 38.37 °N, 9/11/93 - 9/11/93, Salinity



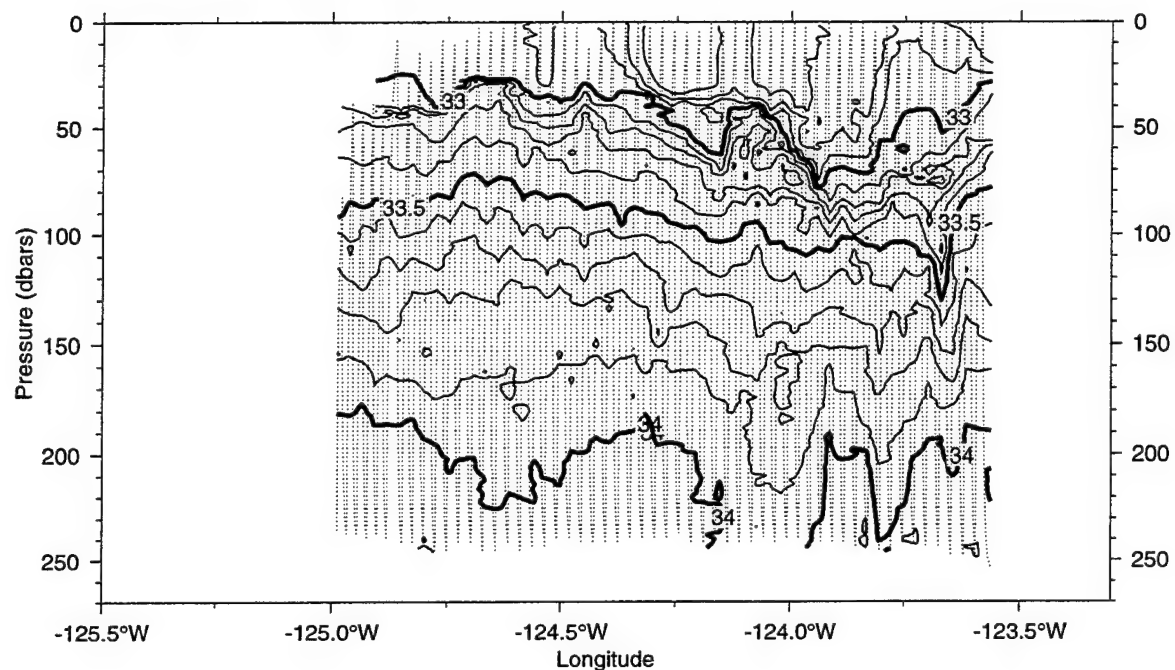
Small Scale Survey 4, Line 05, 38.25 °N, 9/11/93 - 9/12/93, Salinity



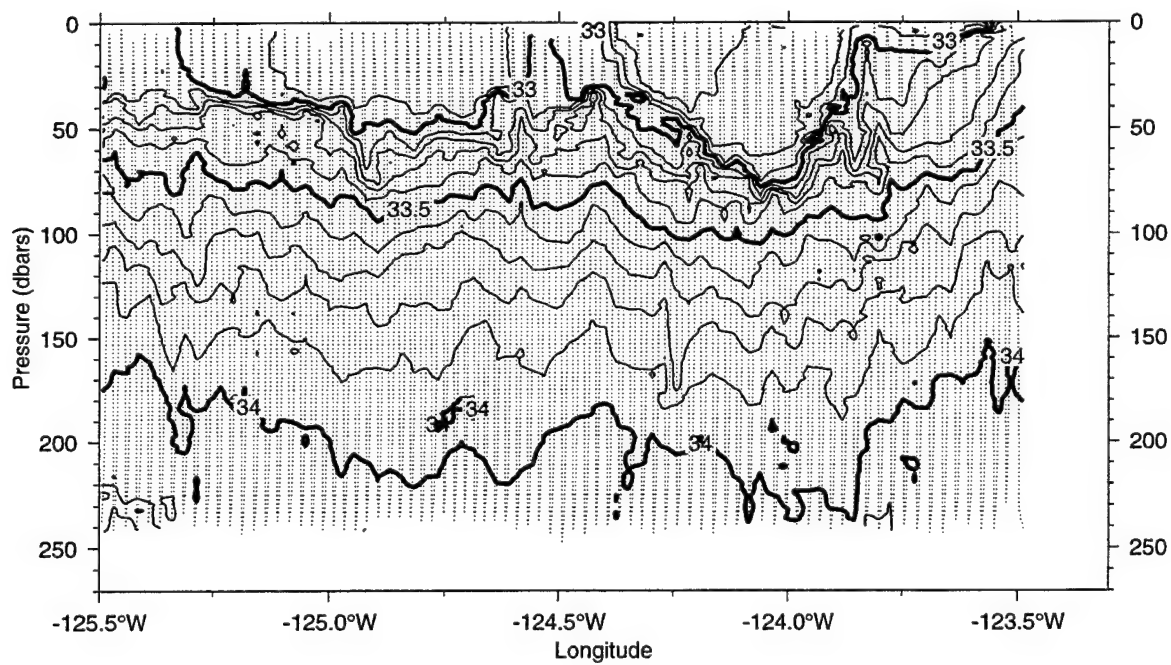
Small Scale Survey 4, Line 06, 38.13 °N, 9/12/93 - 9/12/93, Salinity



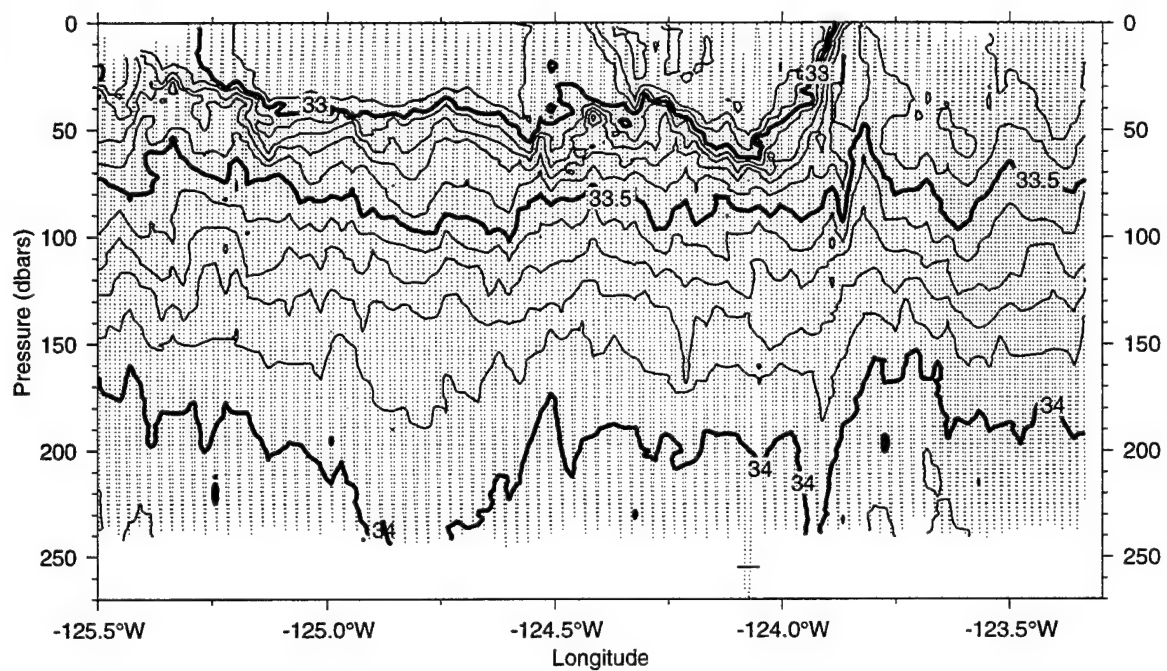
Small Scale Survey 4, Line 07, 38.00 °N, 9/13/93 - 9/14/93, Salinity



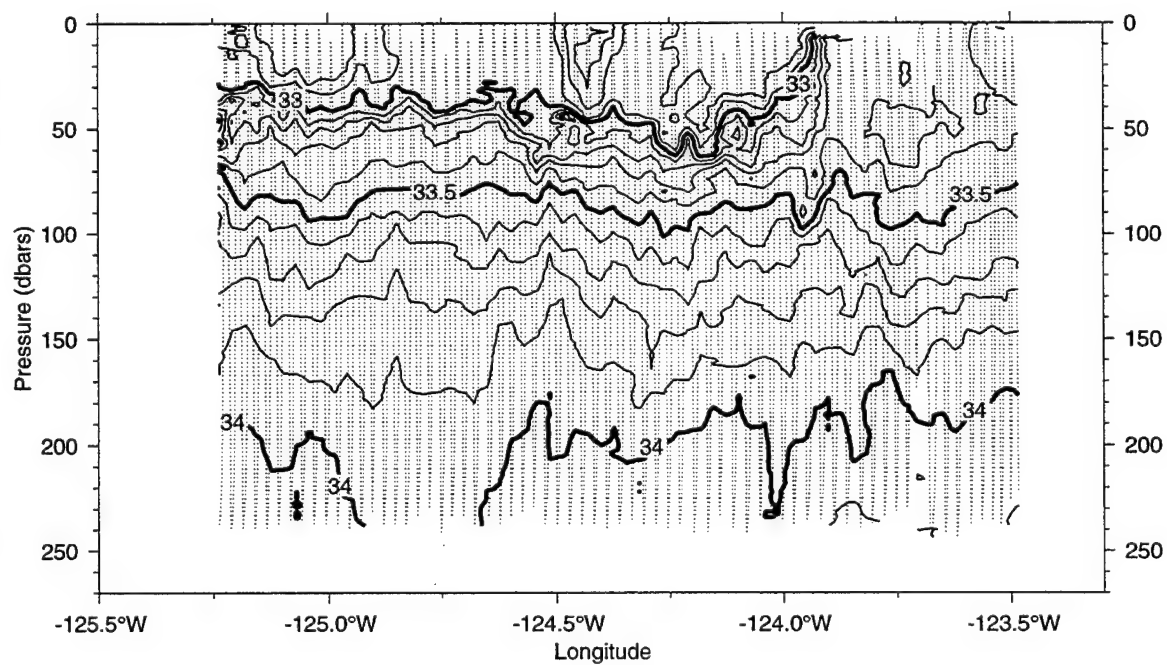
Small Scale Survey 4, Line 08, 37.87 °N, 9/14/93 - 9/14/93, Salinity



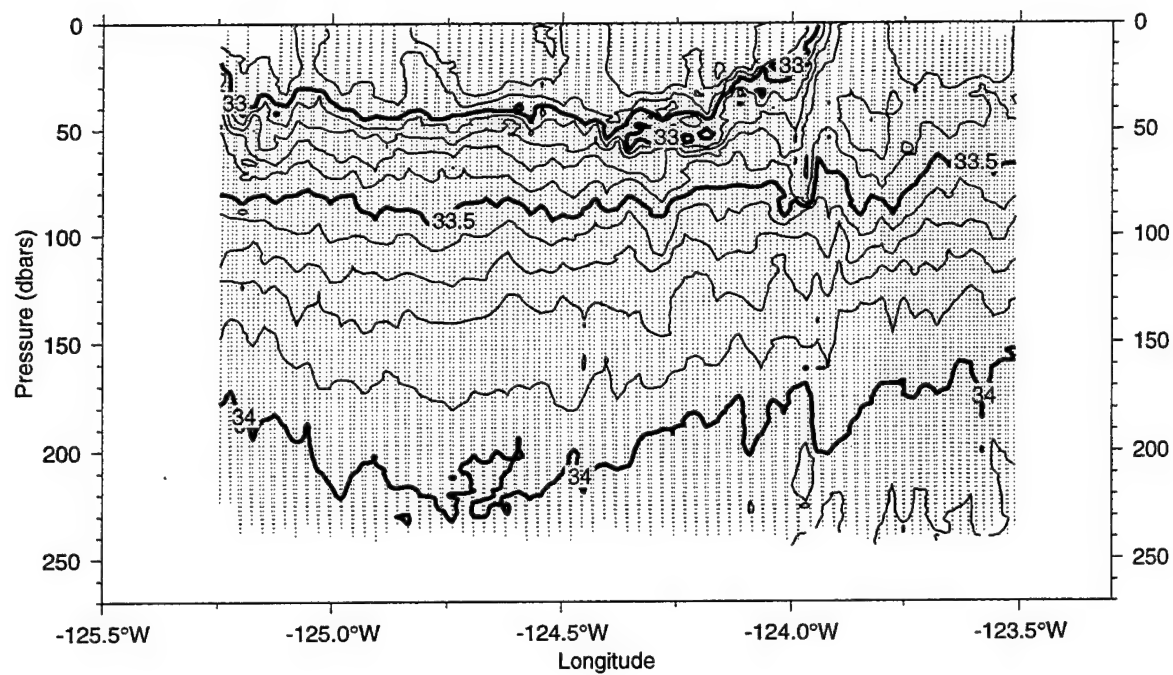
Small Scale Survey 4, Line 09, 37.72 °N, 9/14/93 - 9/15/93, Salinity



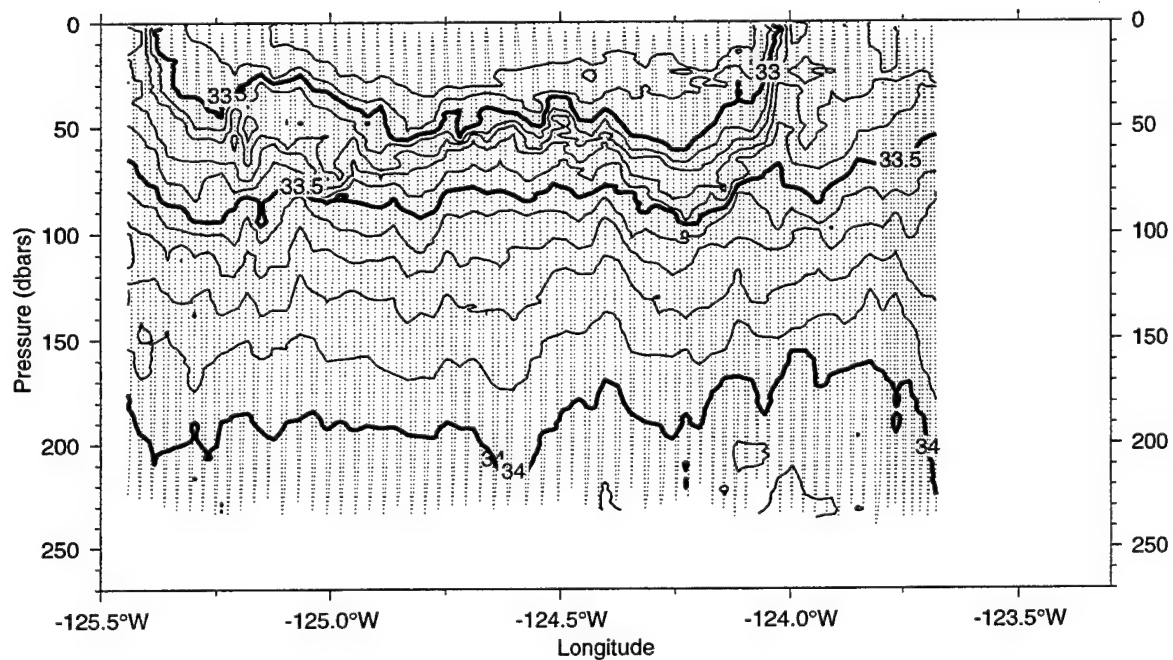
Small Scale Survey 4, Line 10, 37.62 °N, 9/15/93 - 9/15/93, Salinity



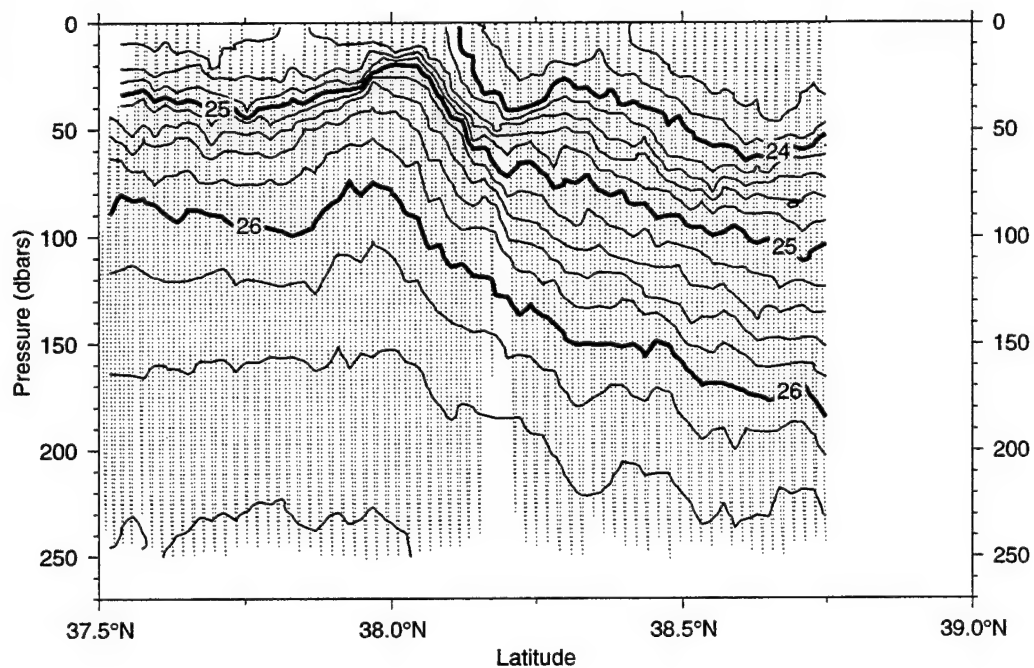
Small Scale Survey 4, Line 11, 37.47 °N, 9/15/93 - 9/16/93, Salinity



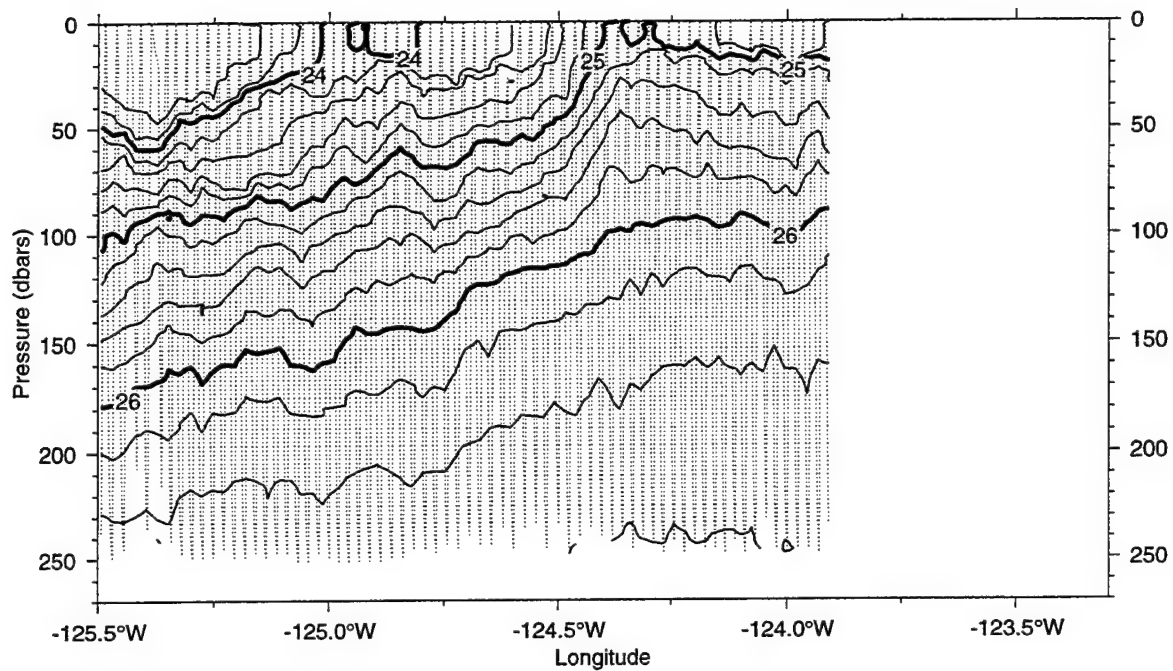
Small Scale Survey 4, Line 12, 37.37 °N, 9/16/93 - 9/16/93, Salinity



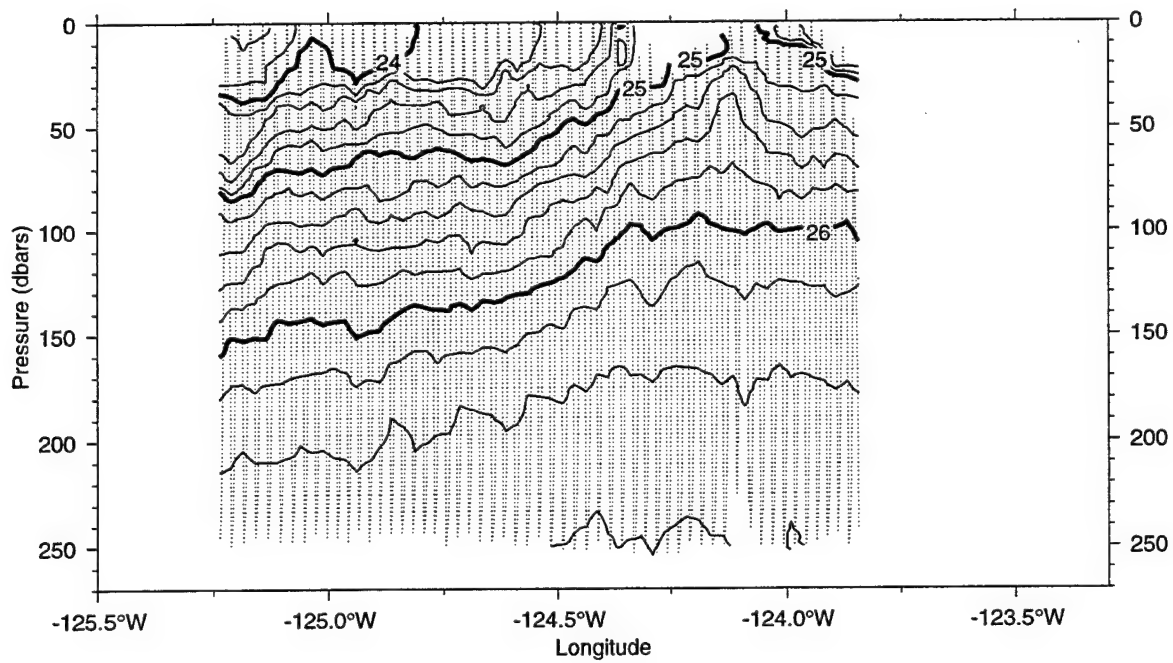
Small Scale Survey 4, Line 00, 125.50 °W, 9/9/93 - 9/10/93, Sigma-t (kg/m³)



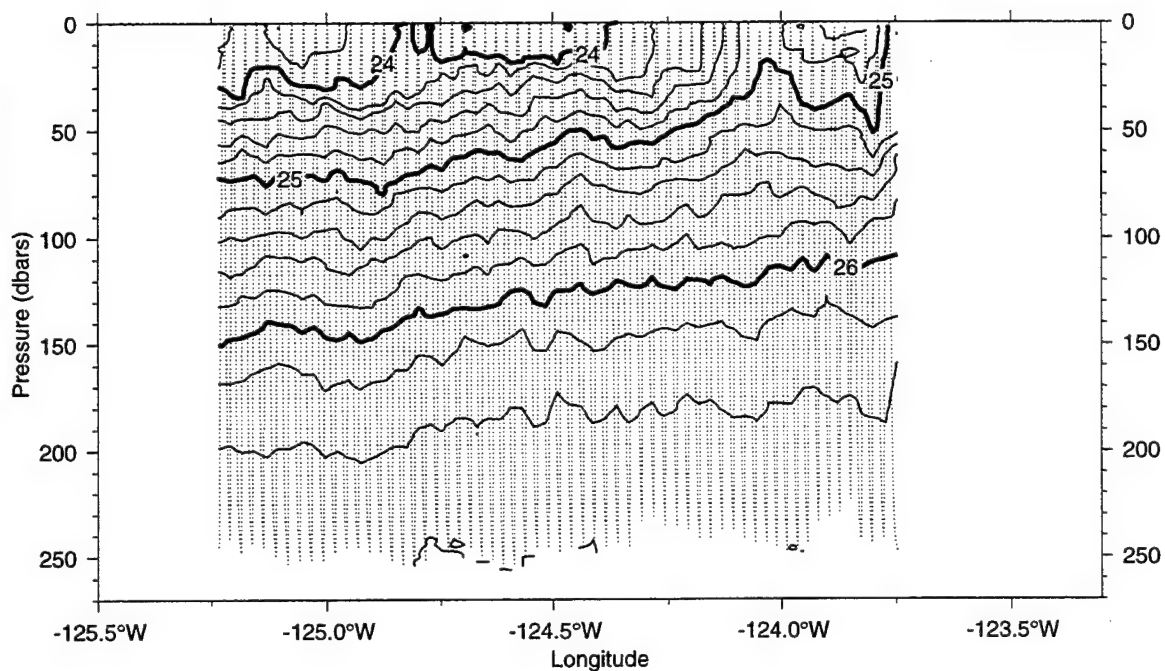
Small Scale Survey 4, Line 01, 38.75 °N, 9/10/93 - 9/10/93, Sigma-t (kg/m³)



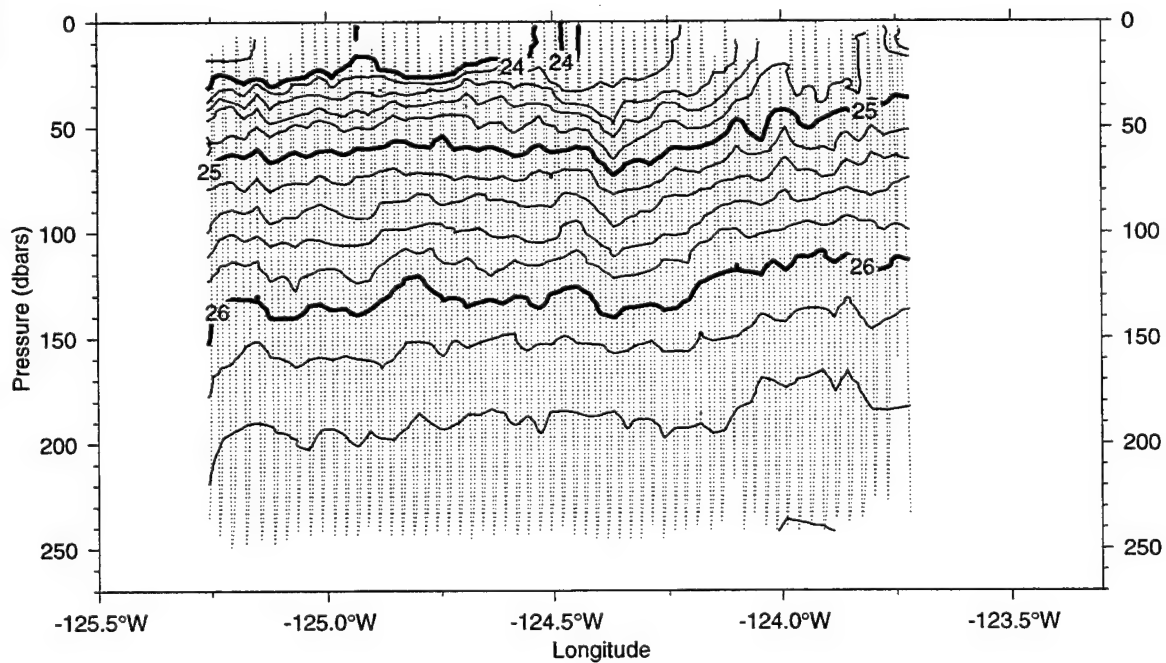
Small Scale Survey 4, Line 02, 38.63 °N, 9/10/93 - 9/10/93, Sigma-t (kg/m³)



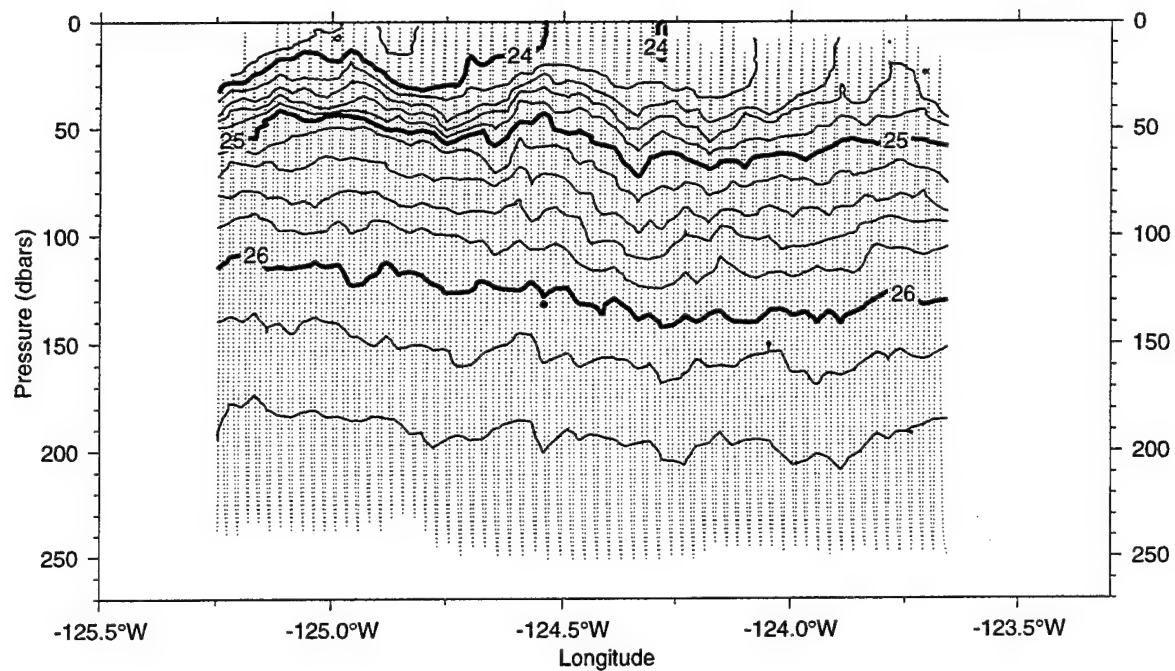
Small Scale Survey 4, Line 03, 38.49 °N, 9/10/93 - 9/11/93, Sigma-t (kg/m³)



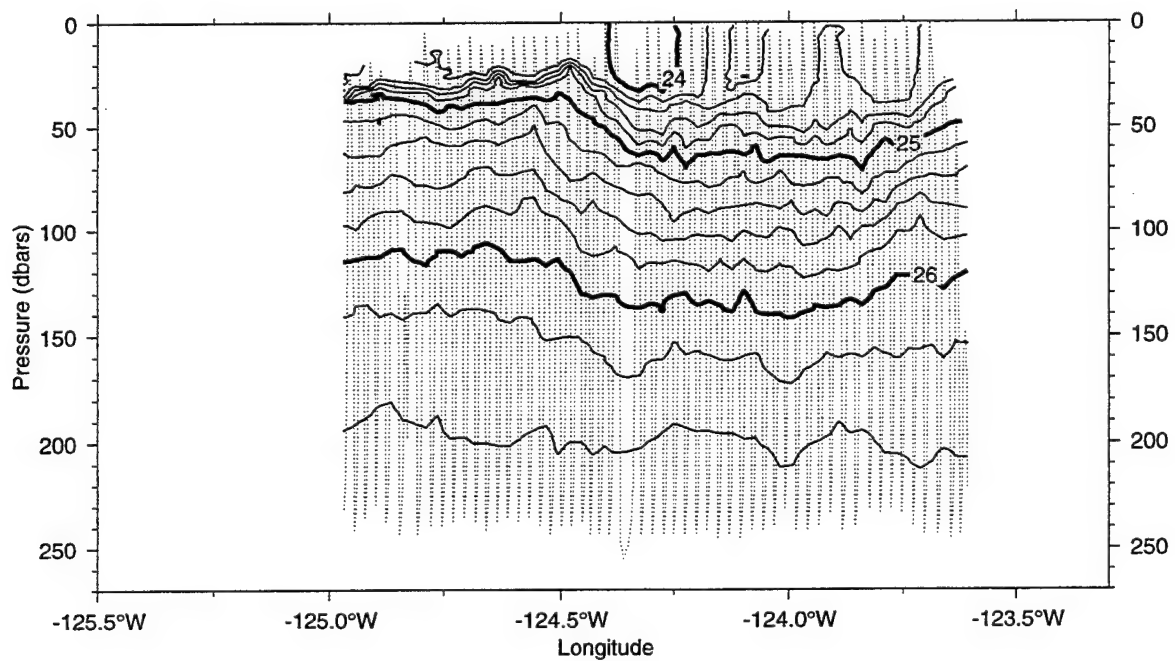
Small Scale Survey 4, Line 04, 38.37 °N, 9/11/93 - 9/11/93, Sigma-t (kg/m³)



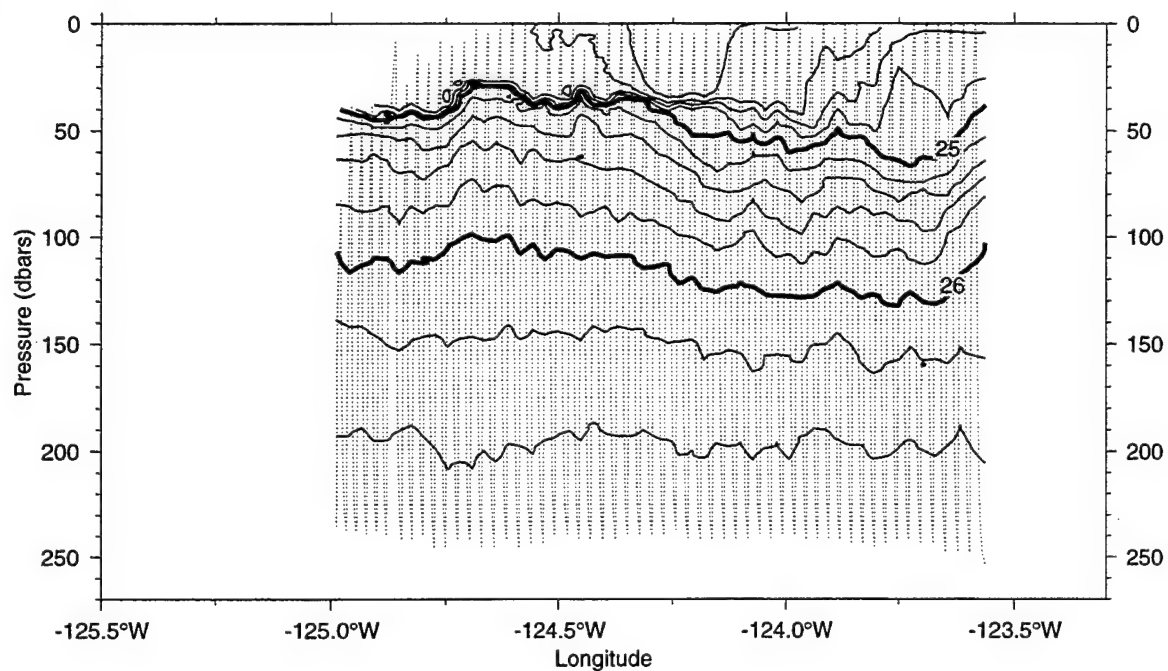
Small Scale Survey 4, Line 05, 38.25 °N, 9/11/93 - 9/12/93, Sigma-t (kg/m³)



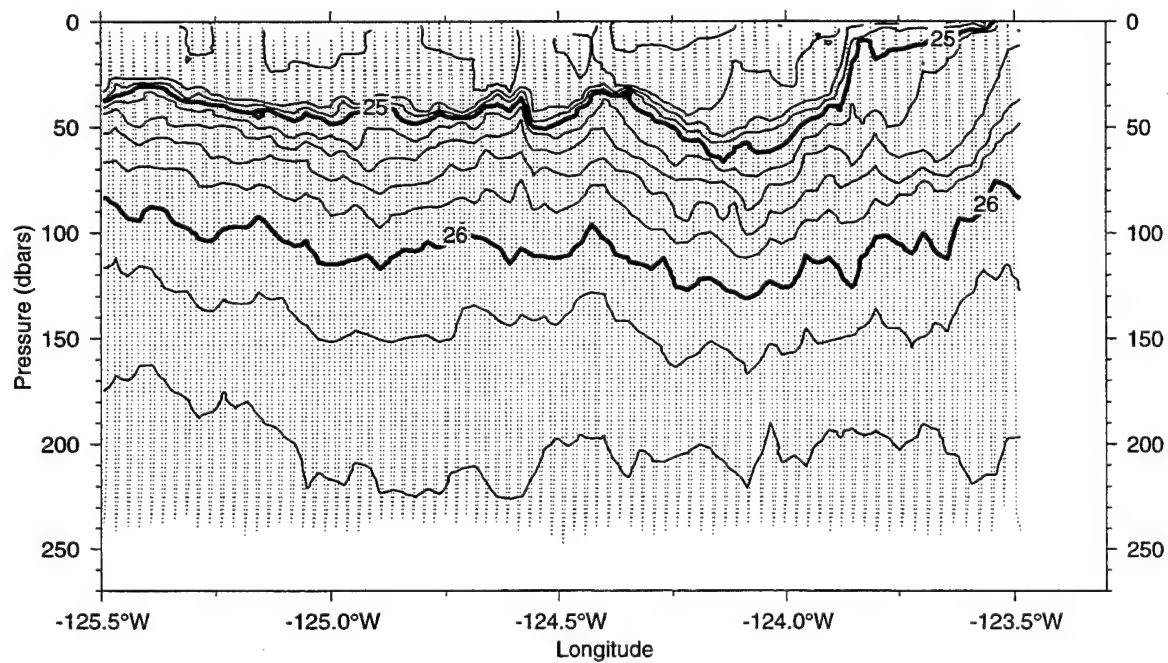
Small Scale Survey 4, Line 06, 38.13 °N, 9/12/93 - 9/12/93, Sigma-t (kg/m³)



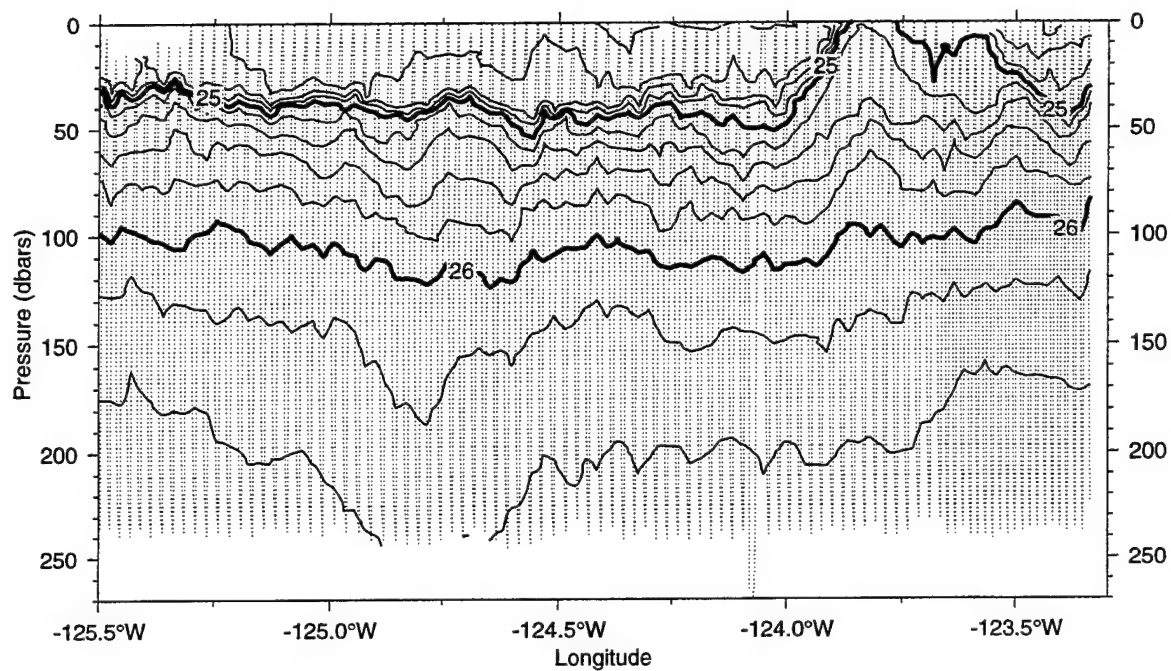
Small Scale Survey 4, Line 07, 38.00 °N, 9/13/93 - 9/14/93, Sigma-t (kg/m³)



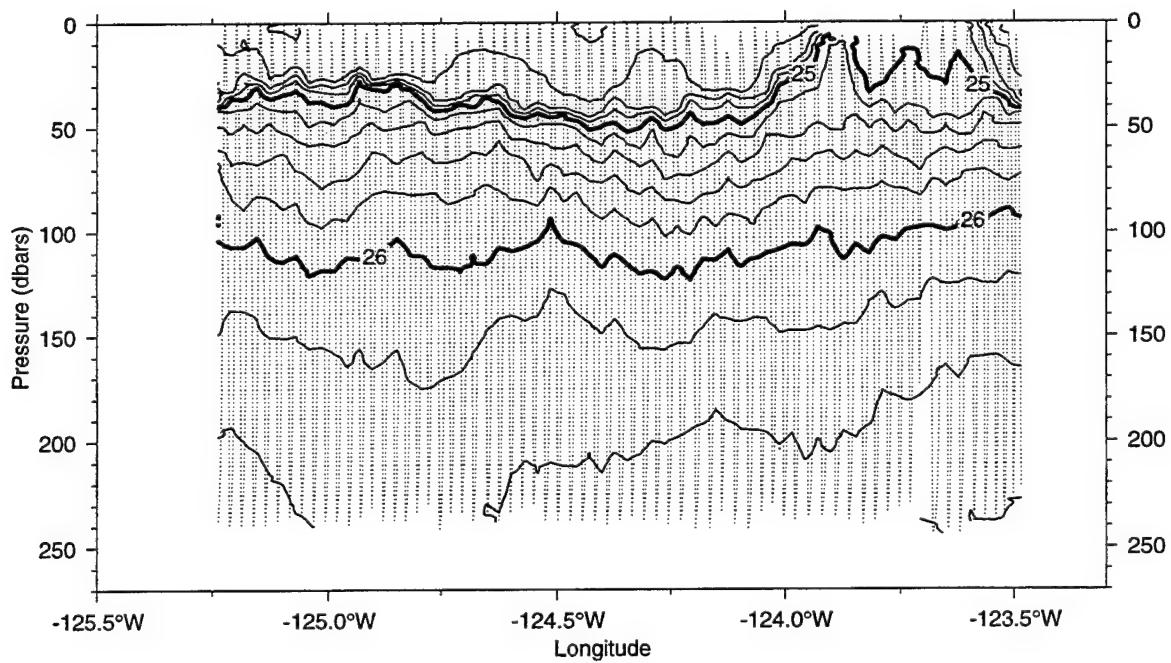
Small Scale Survey 4, Line 08, 37.87 °N, 9/14/93 - 9/14/93, Sigma-t (kg/m³)



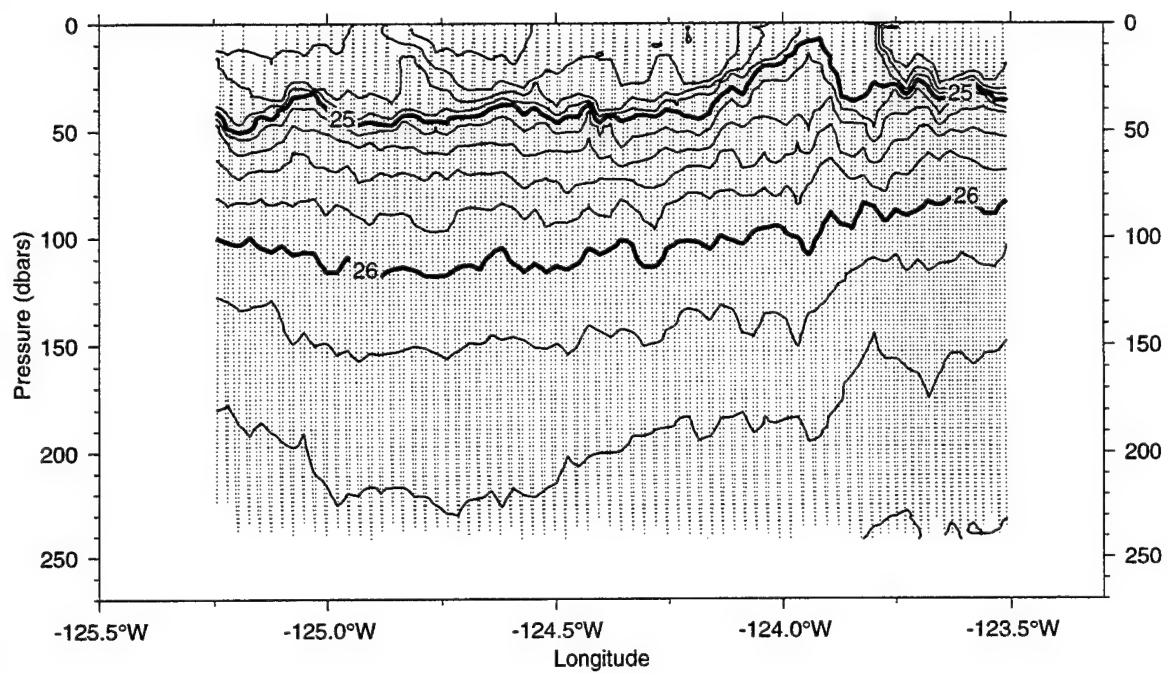
Small Scale Survey 4, Line 09, 37.72 °N, 9/14/93 - 9/15/93, Sigma-t (kg/m³)



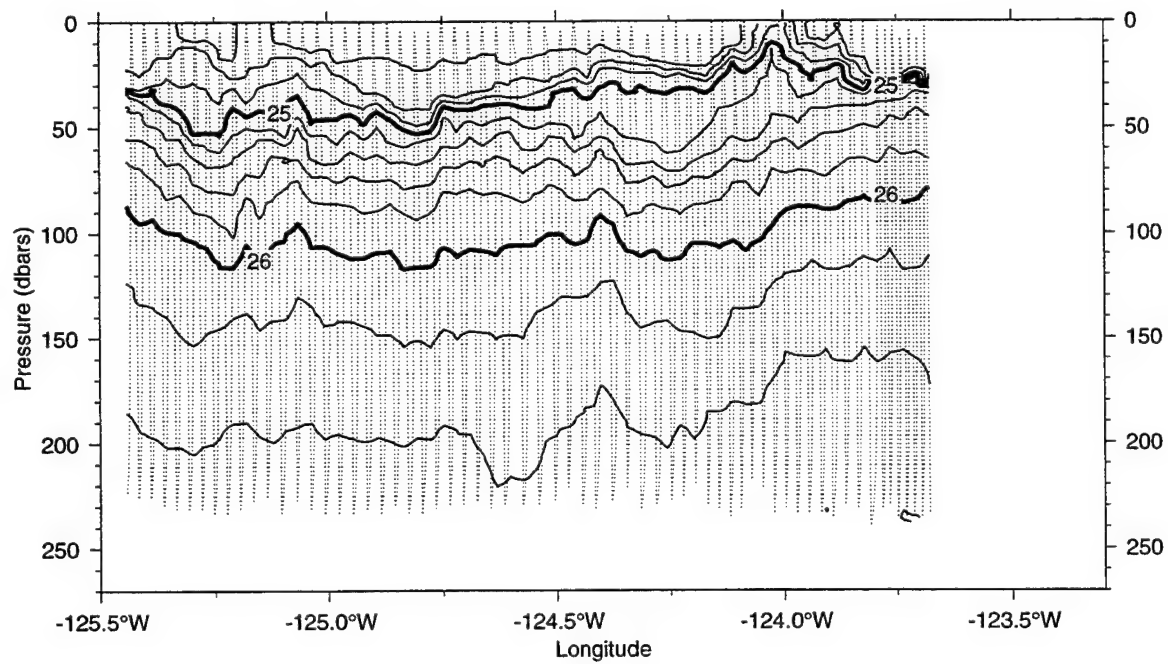
Small Scale Survey 4, Line 10, 37.62 °N, 9/15/93 - 9/15/93, Sigma-t (kg/m³)



Small Scale Survey 4, Line 11, 37.47 °N, 9/15/93 - 9/16/93, Sigma-t (kg/m³)

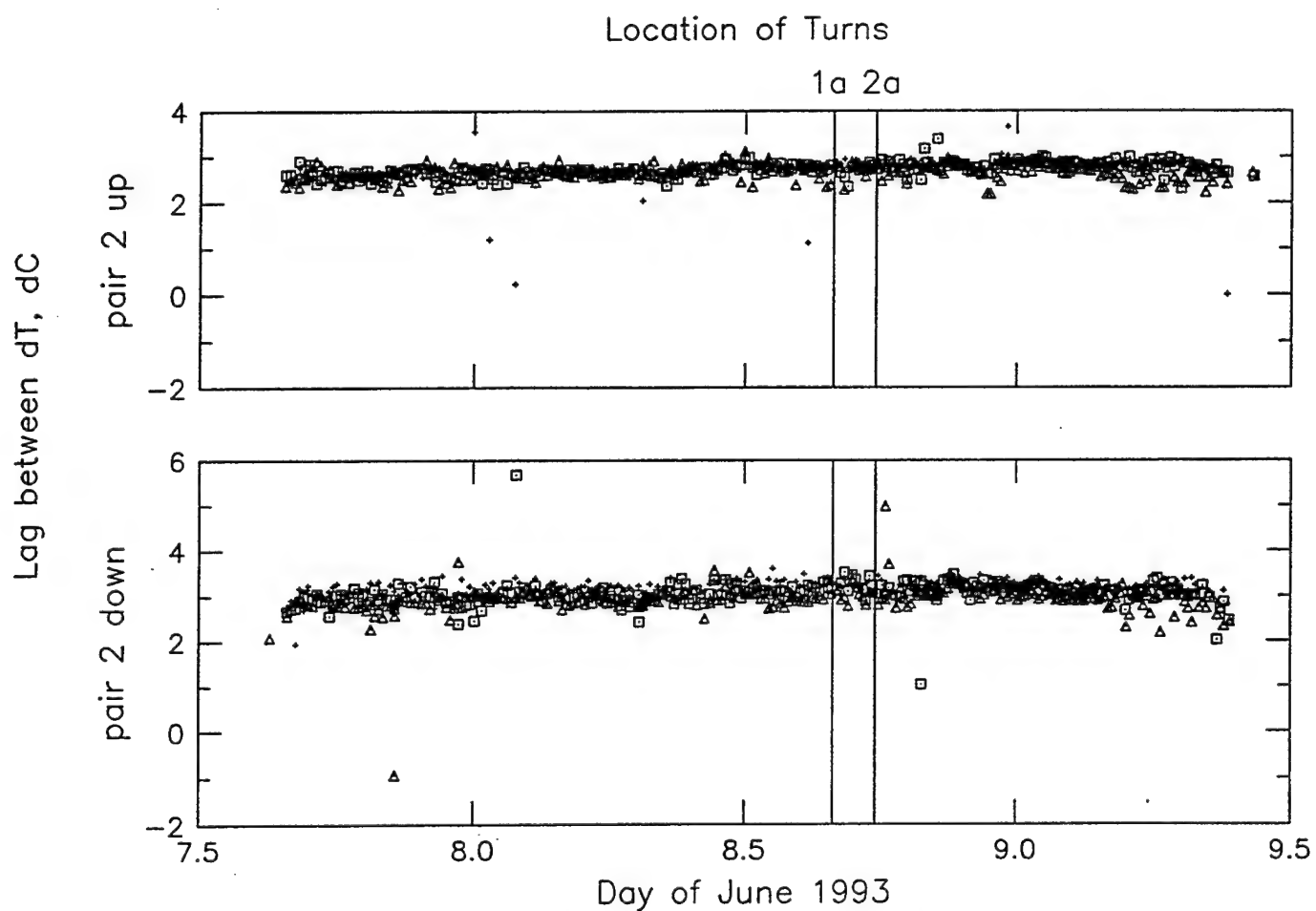
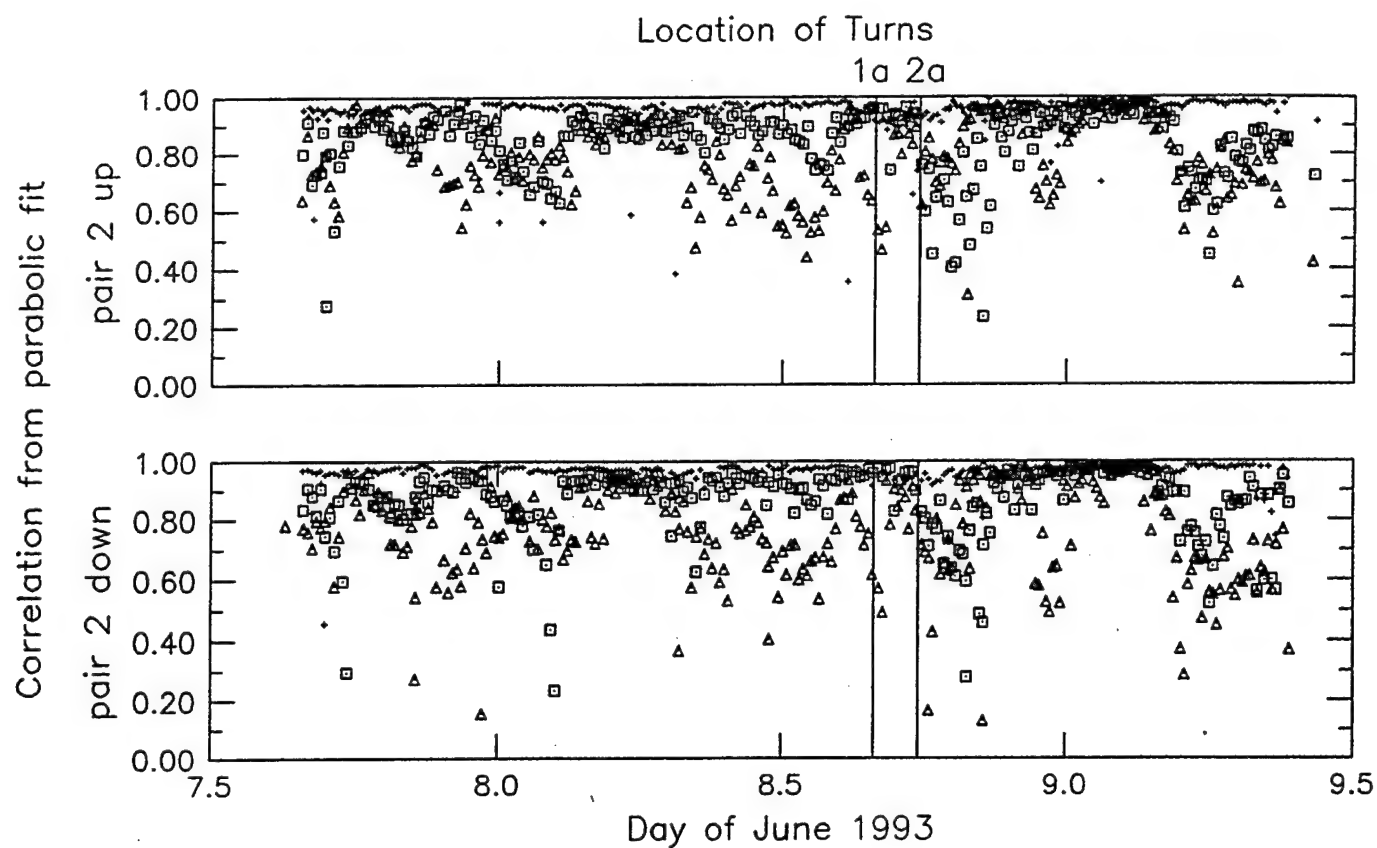


Small Scale Survey 4, Line 12, 37.37 °N, 9/16/93 - 9/16/93, Sigma-t (kg/m³)



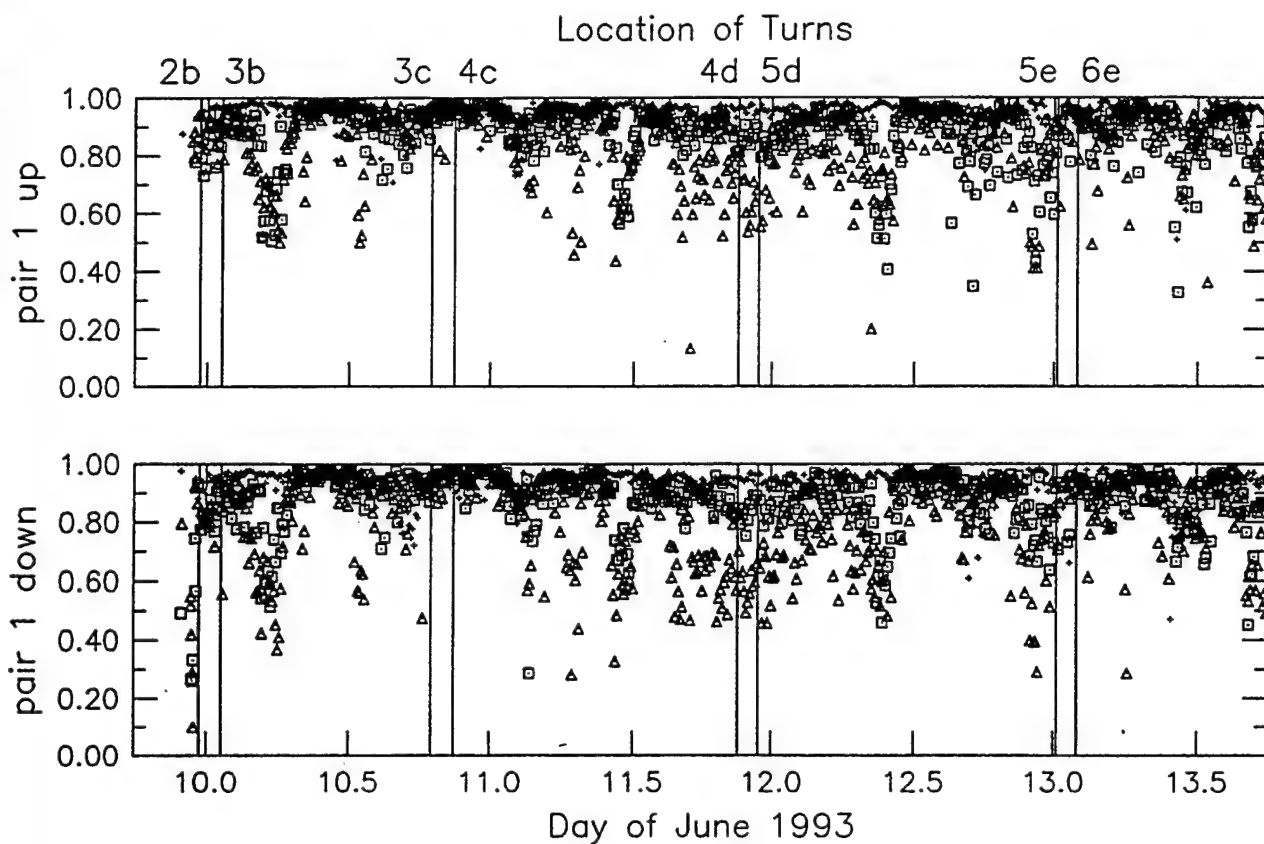
APPENDIX A:

Time Series of Lag of Maximum T/C Correlation
for Seasoar Tows

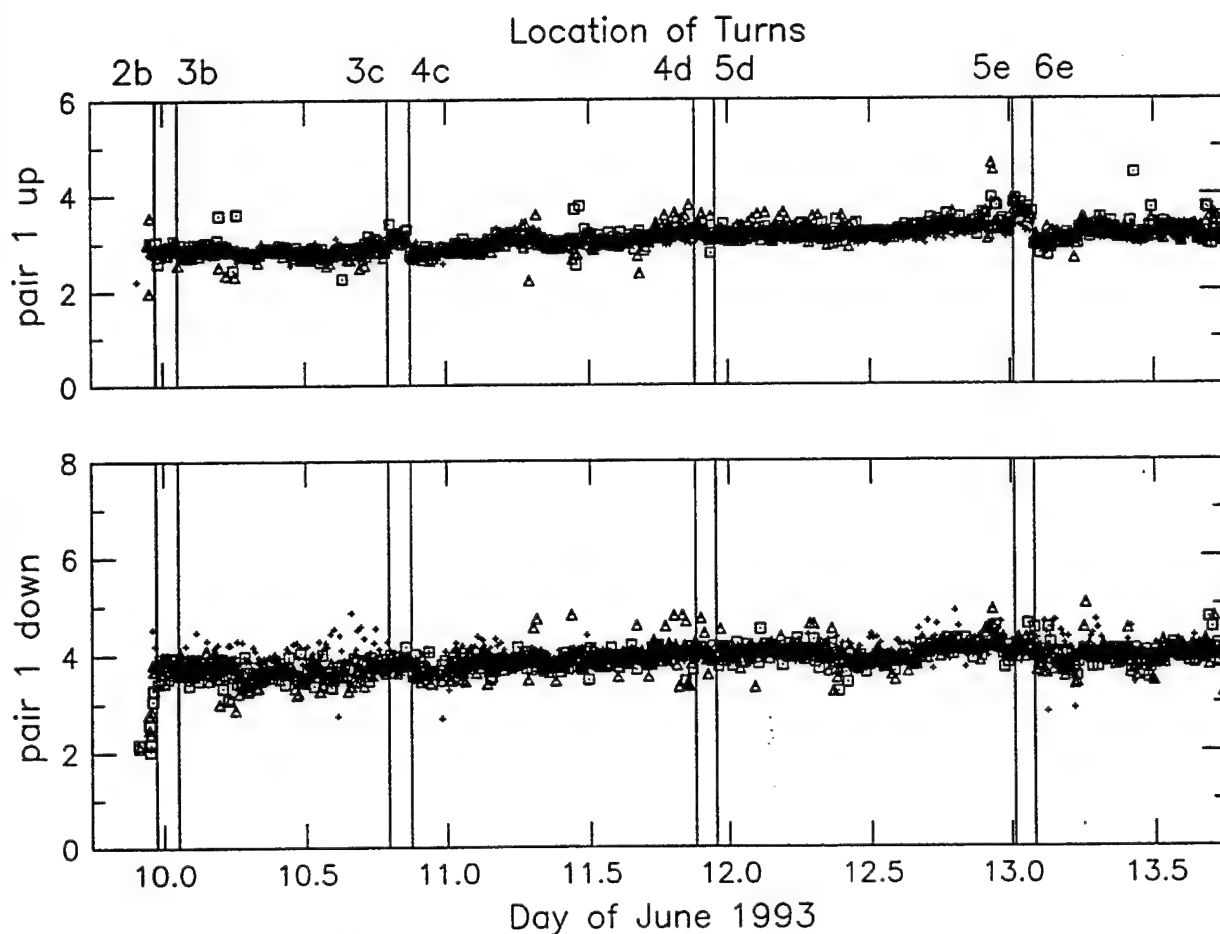


W9306a Tow 1, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

Correlation from parabolic fit



Lag between dT, dC



W9306a Tow 2, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)

Location of Turns

6f 7f

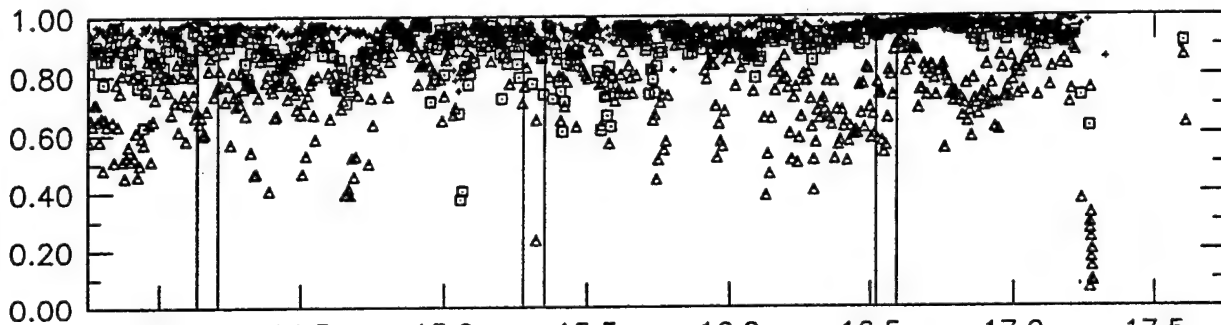
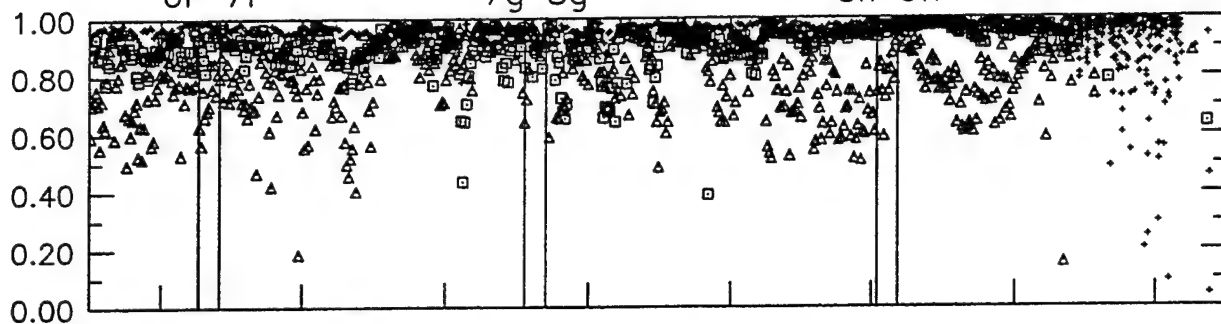
7g 8g

8h 9h

Correlation from parabolic fit

pair 1 up

pair 1 down



Day of June 1993

Location of Turns

6f 7f

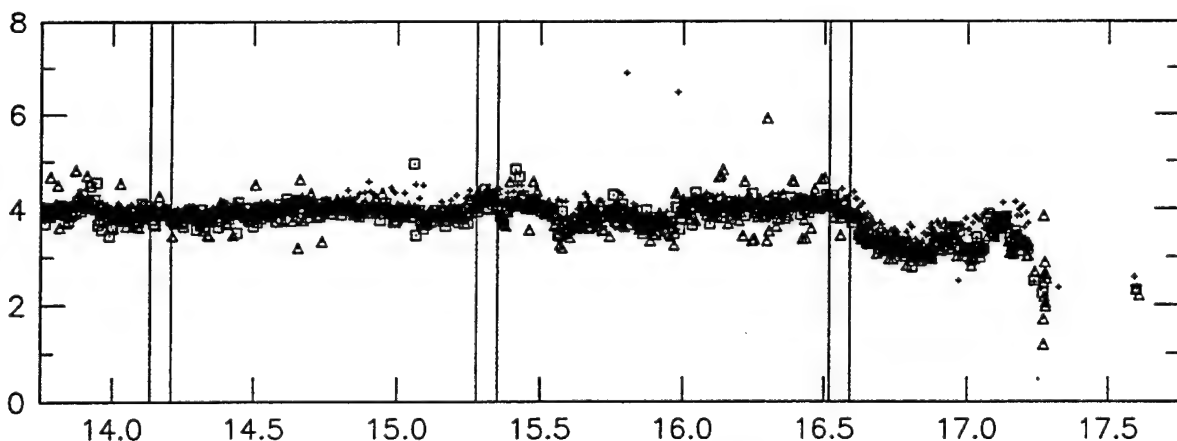
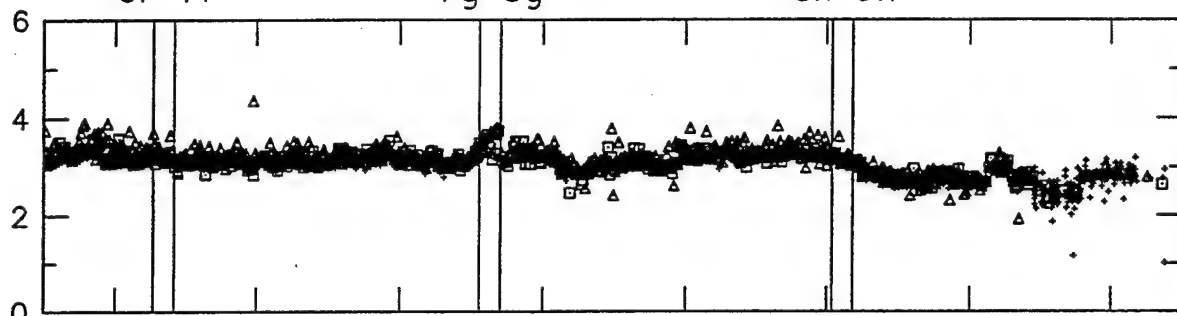
7g 8g

8h 9h

Lag between dT, dC

pair 1 up

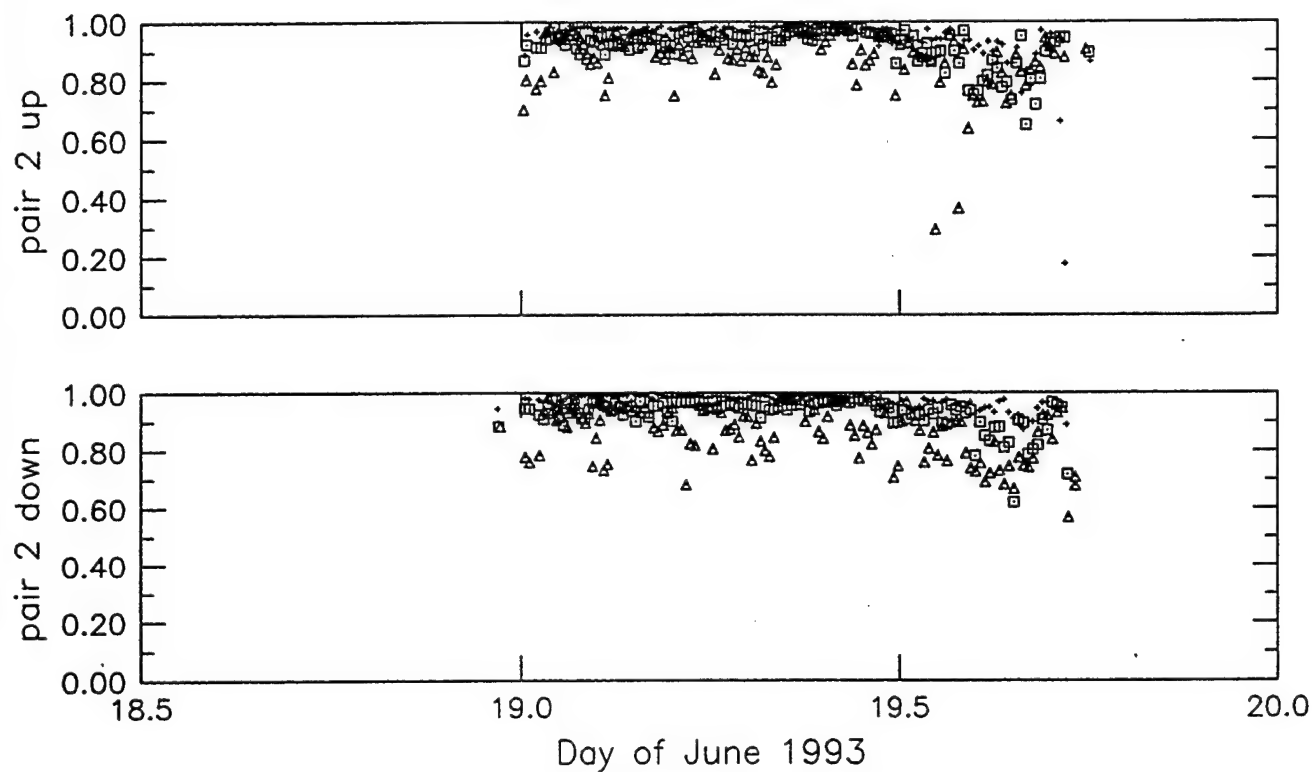
pair 1 down



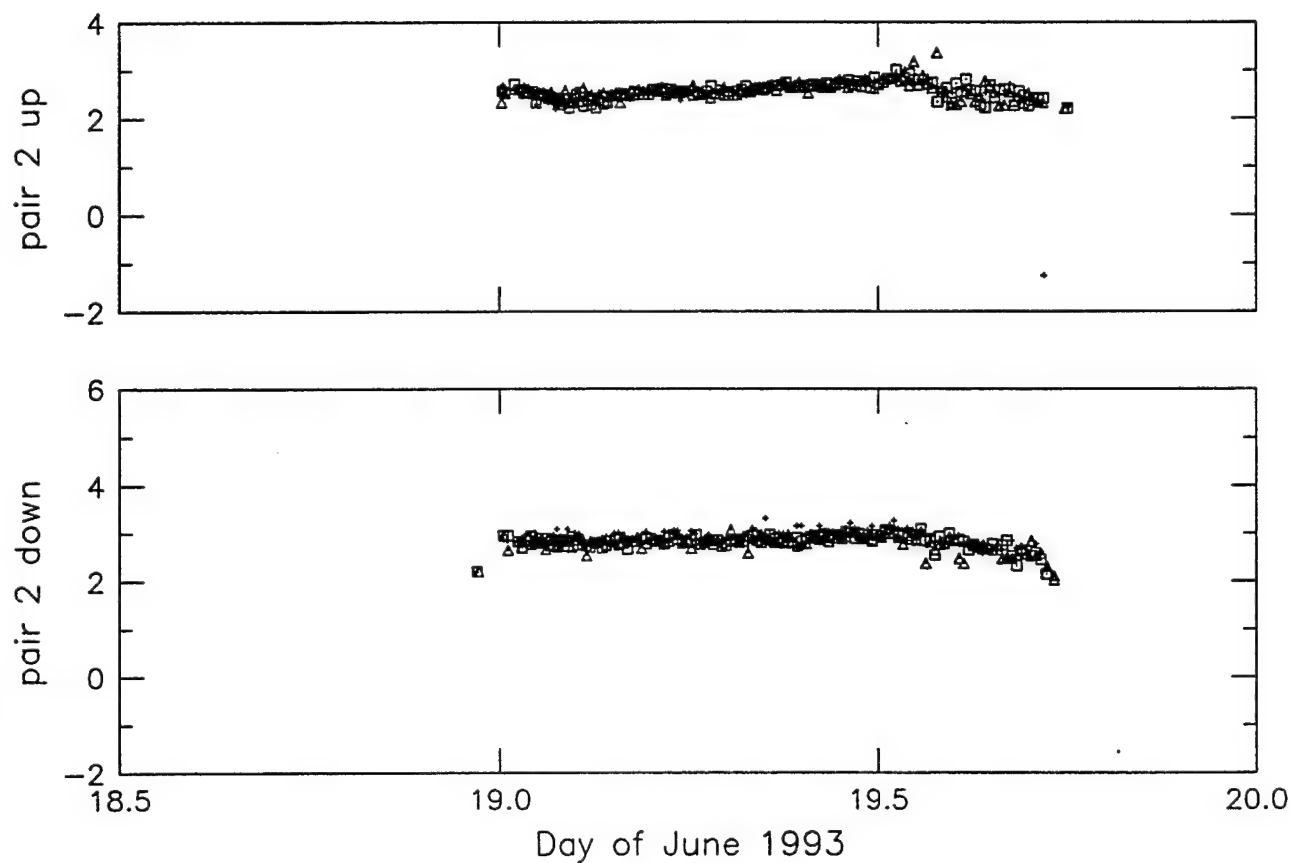
Day of June 1993

W9306a Tow 2, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)

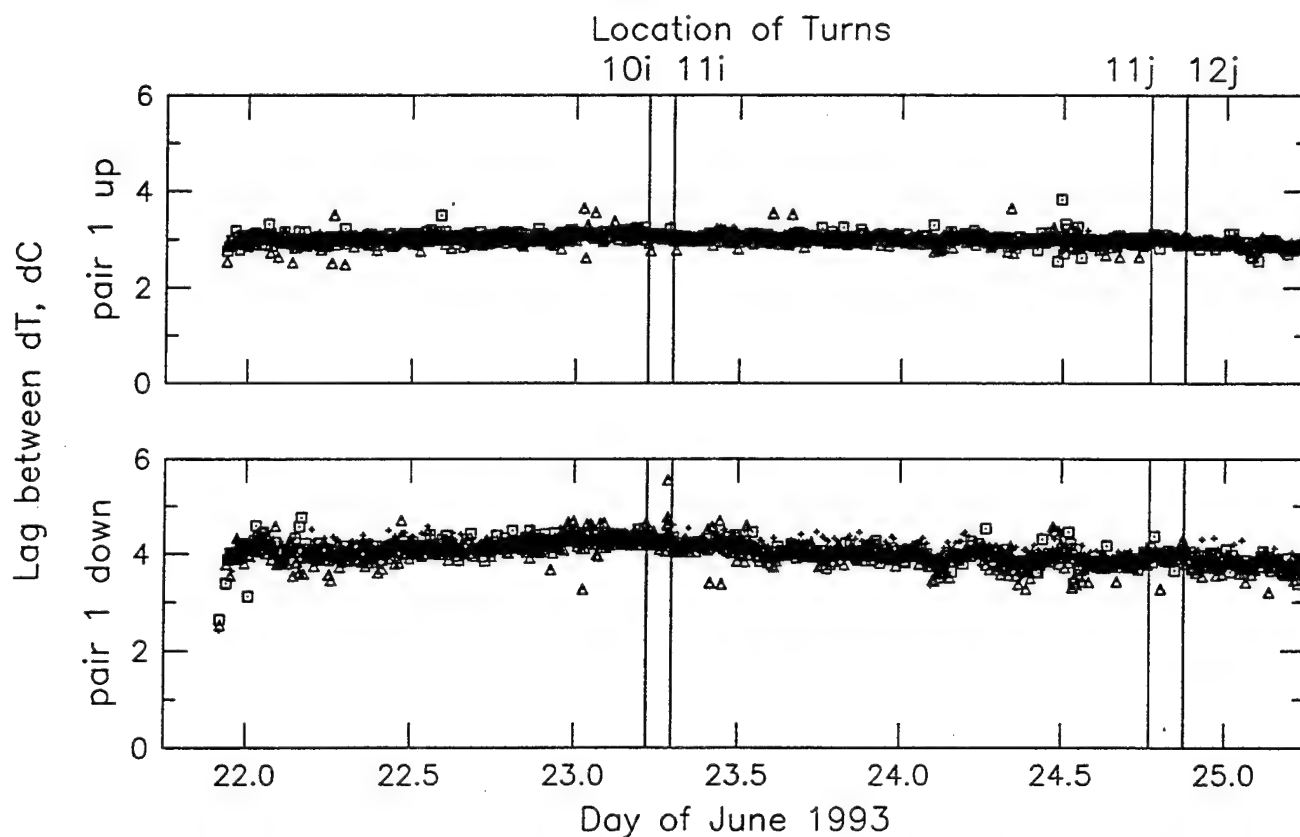
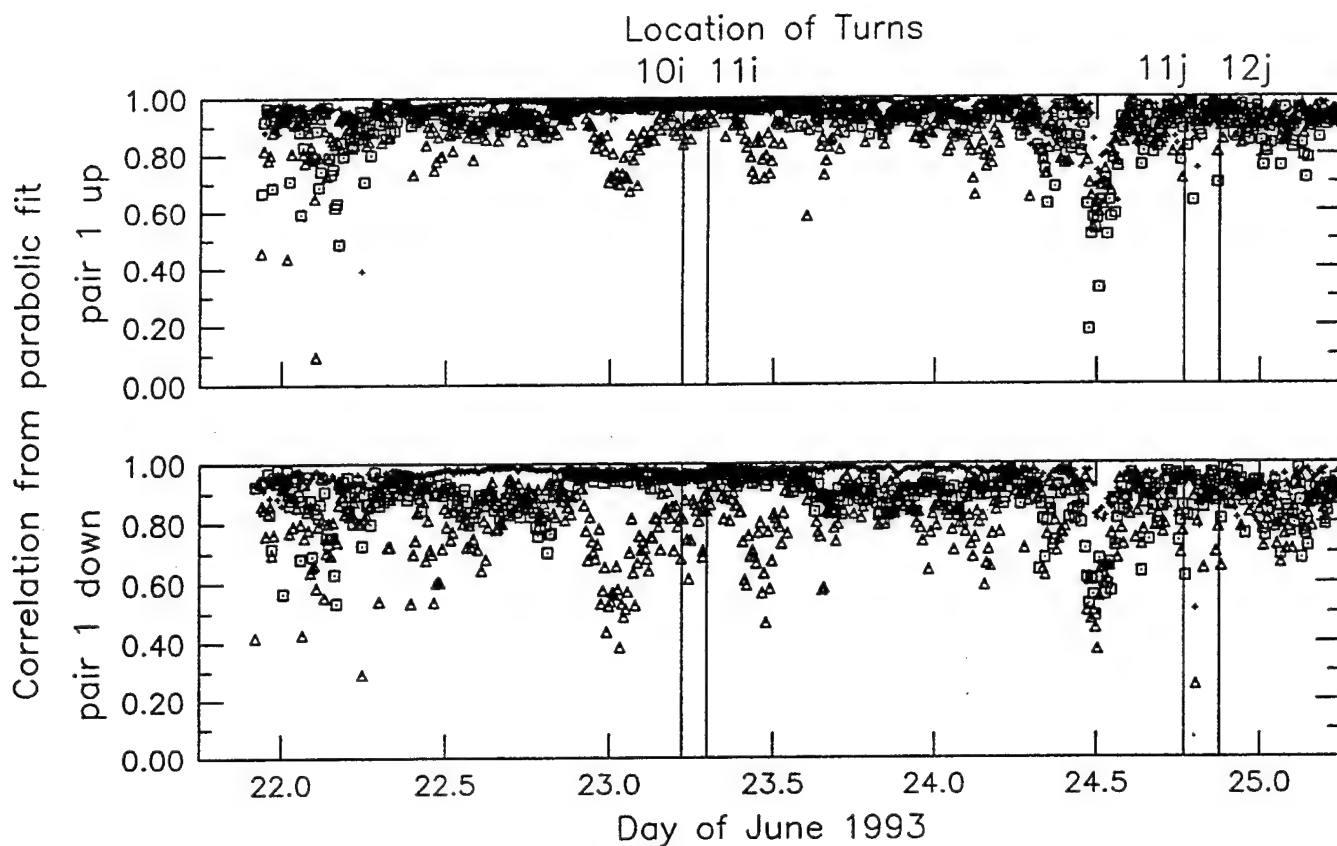
Correlation from parabolic fit



Lag between dT, dC



W9306a Tow 3, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)

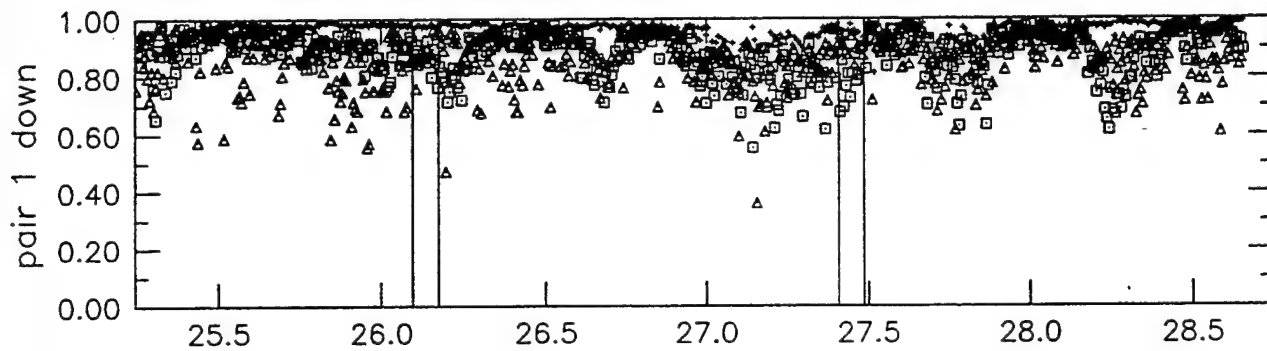
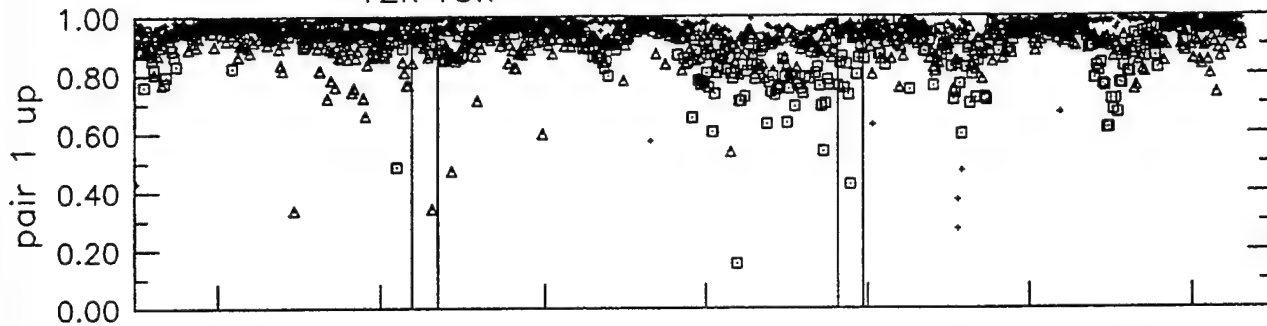


W9306a Tow 4, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)

Location of Turns

12k 13k

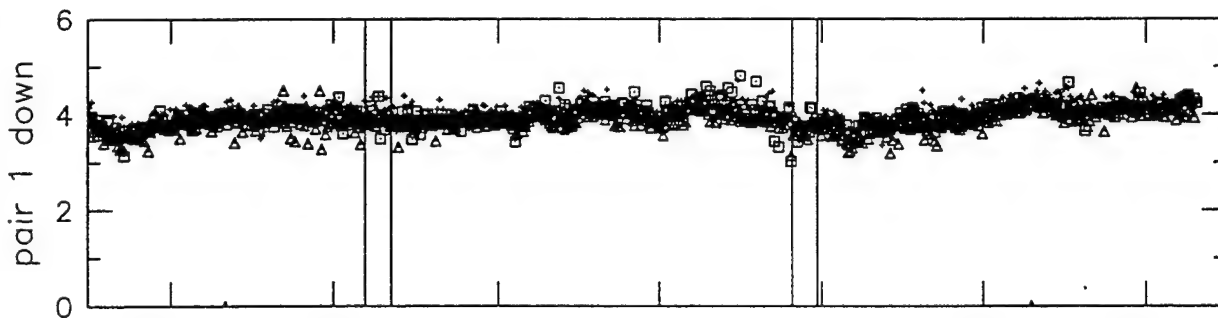
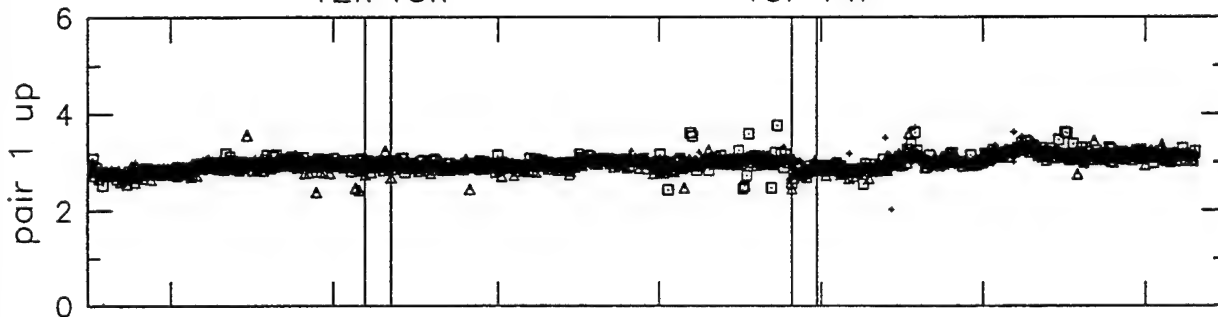
13l 14l



Location of Turns

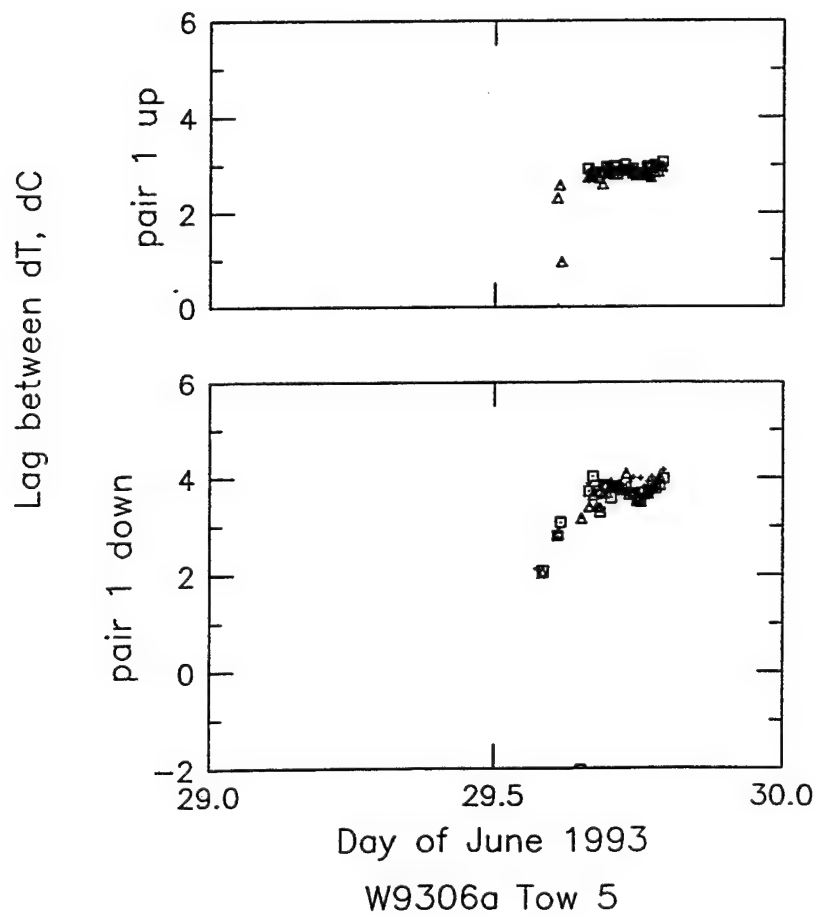
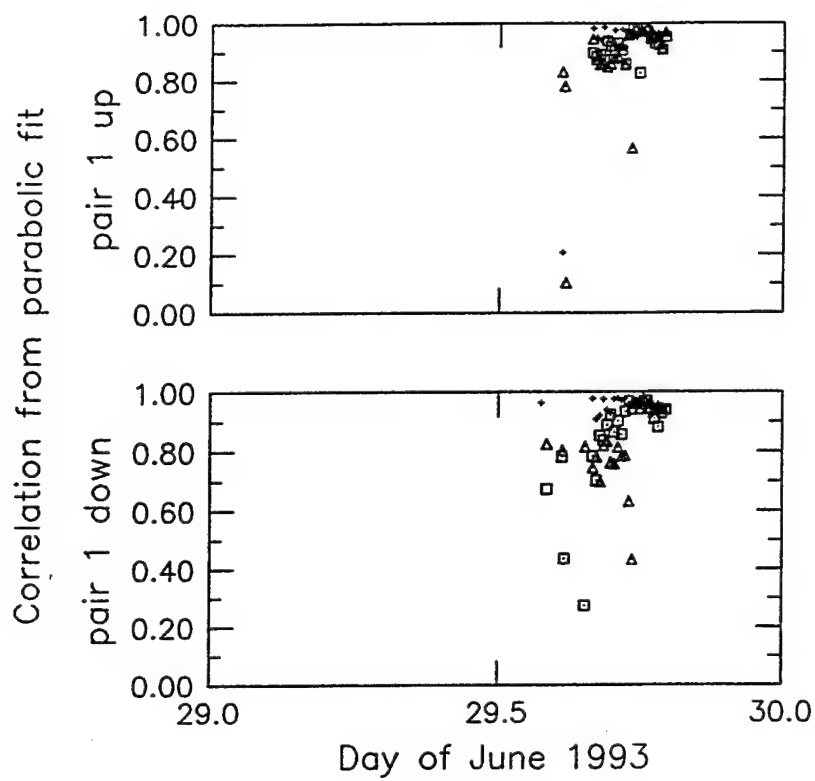
12k 13k

13l 14l

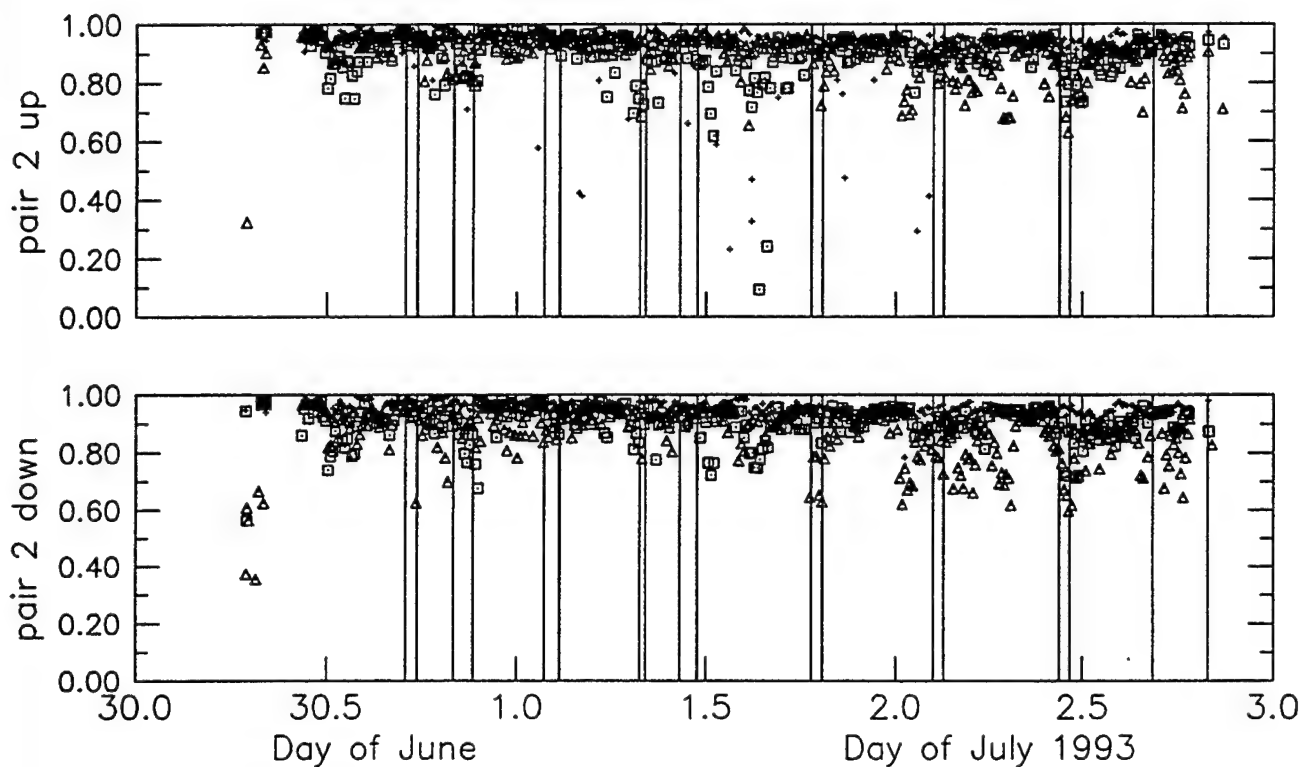


Day of June 1993

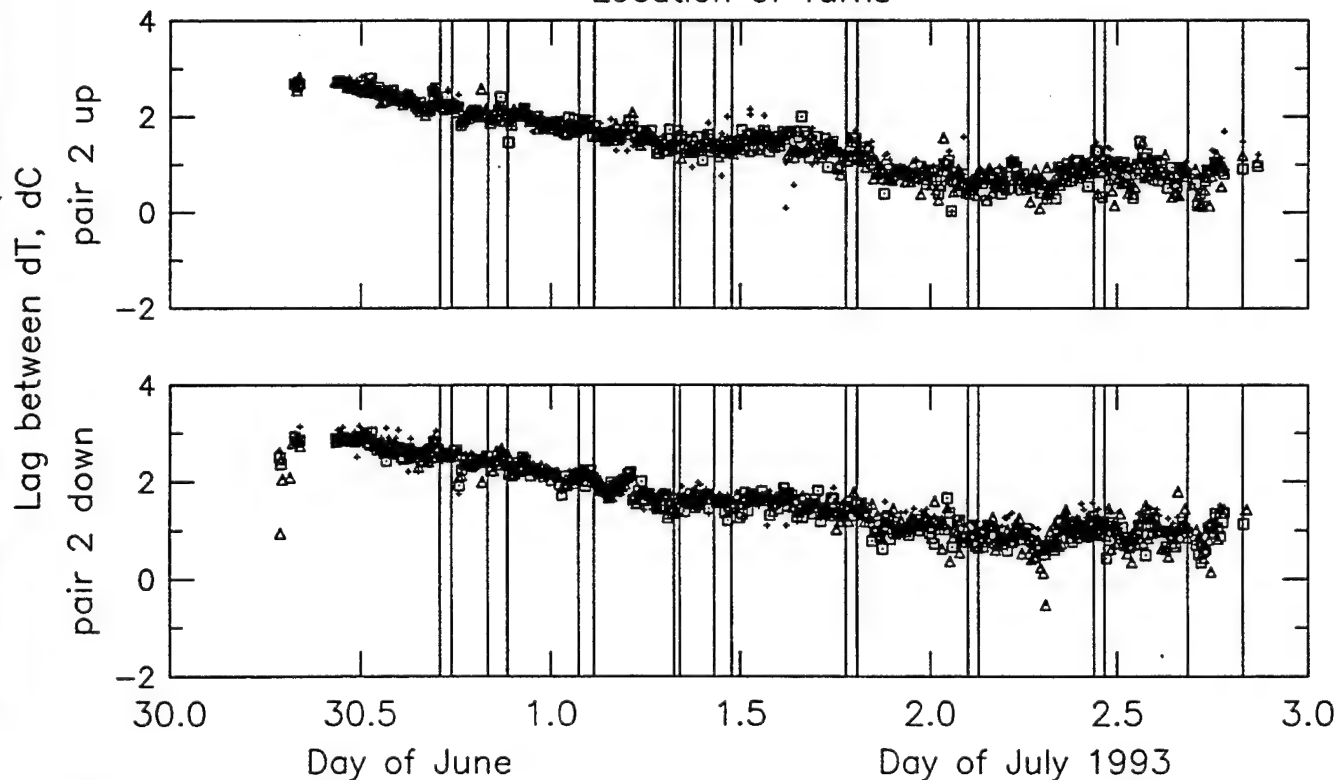
W9306a Tow 4, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)



Location of Turns

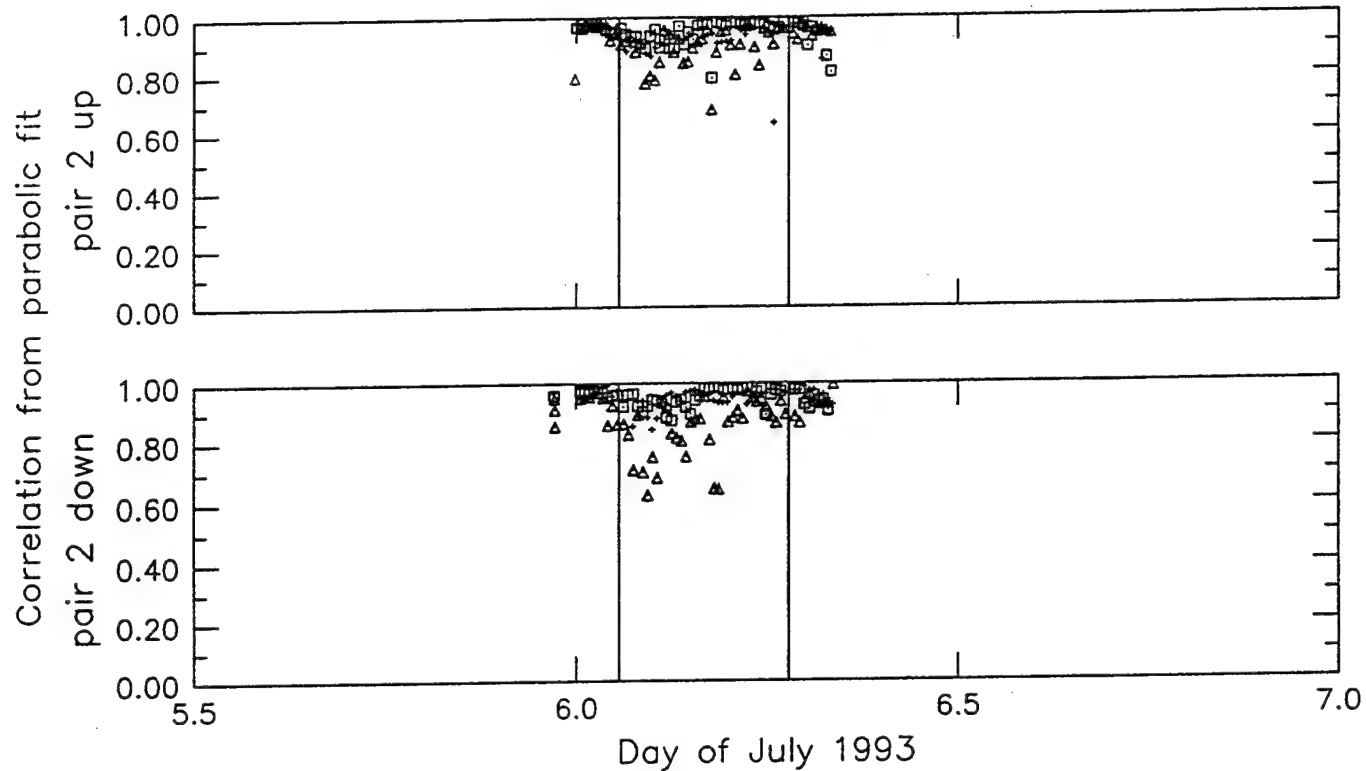


Location of Turns

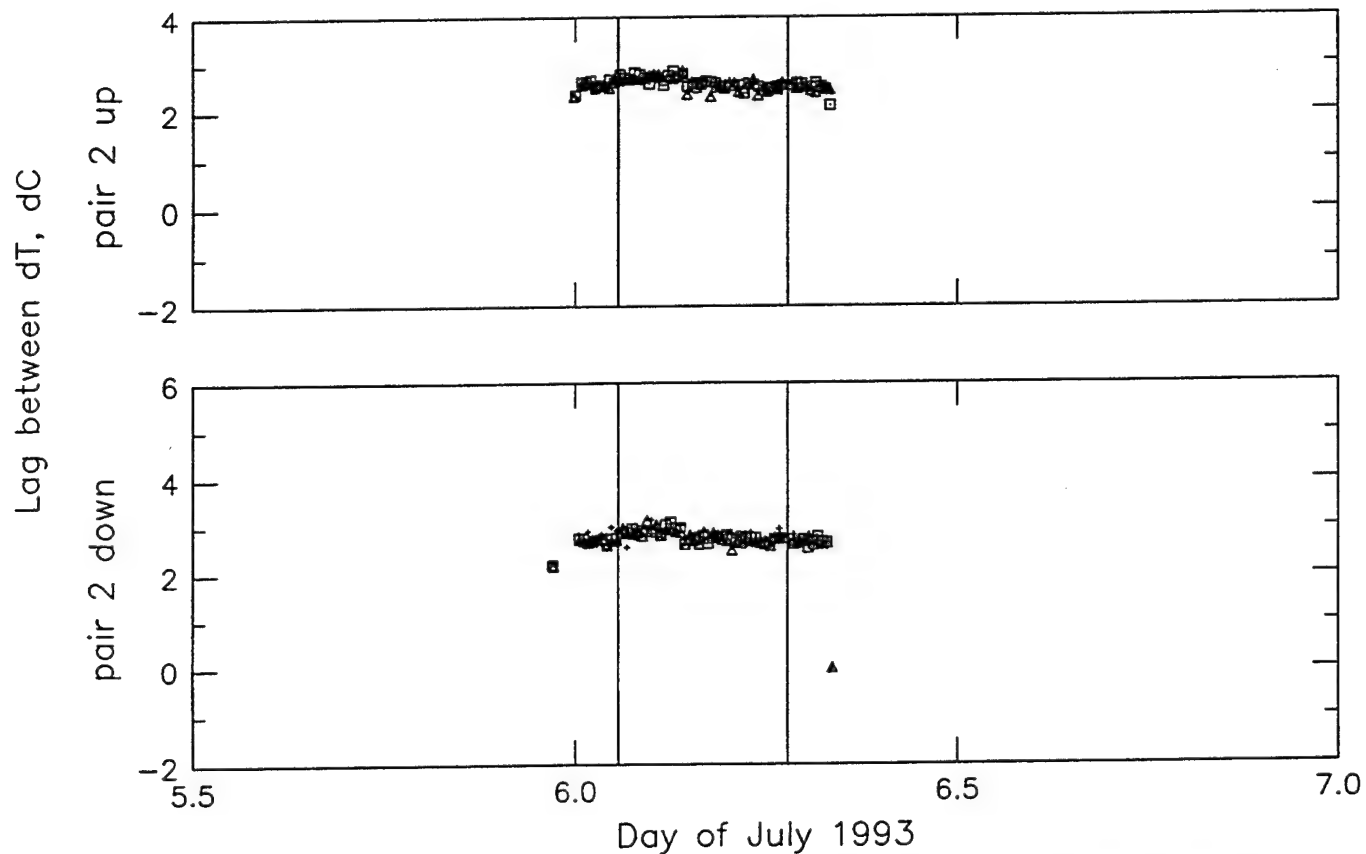


W9306a Tow 6, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)

Location of Turns



Location of Turns

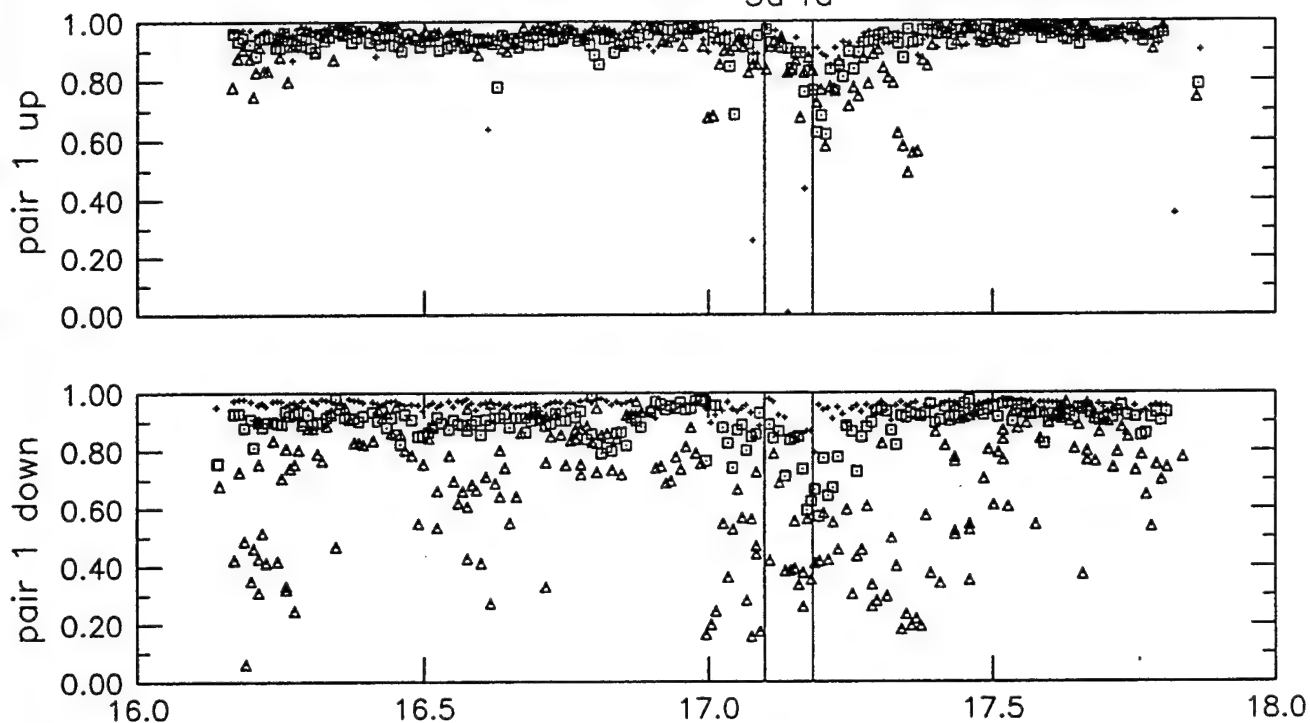


W9306a Tow 7, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

Correlation from parabolic fit

Location of Turns

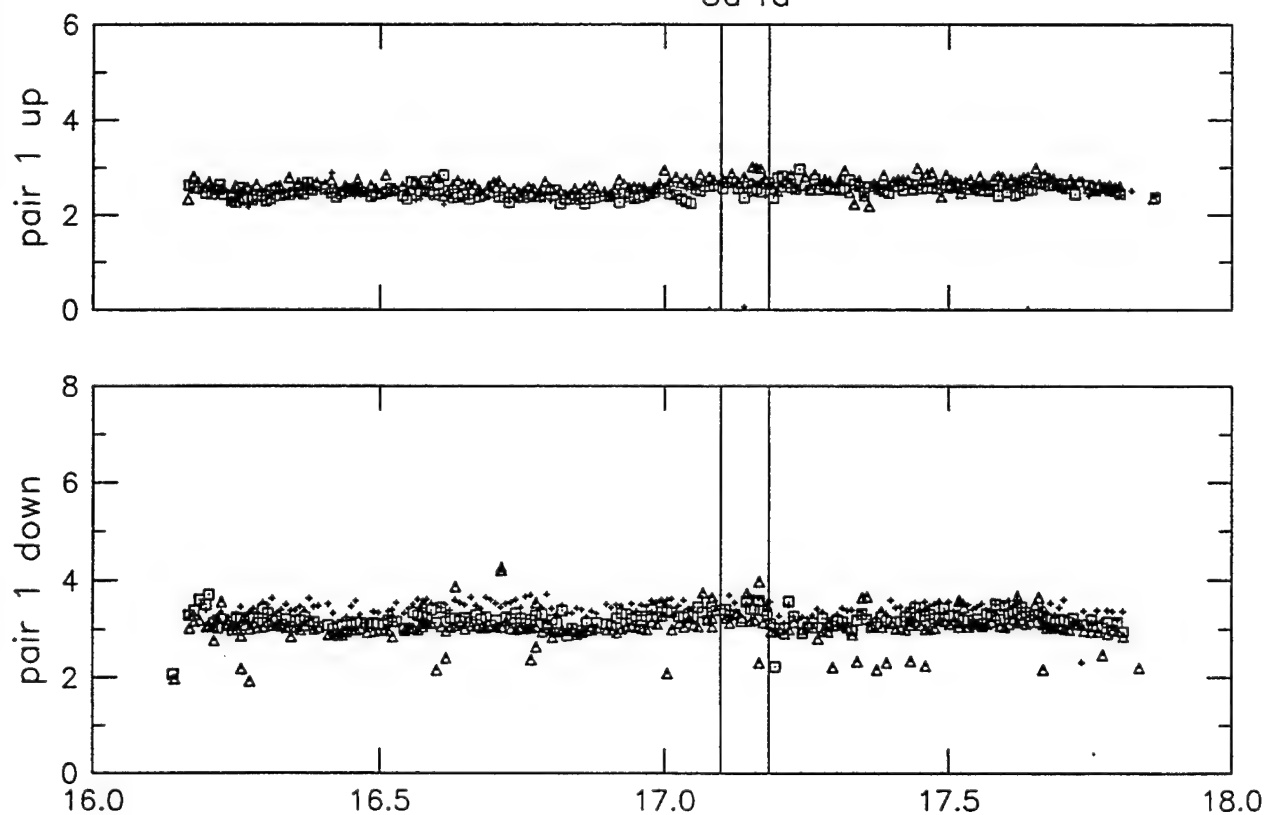
3a 4a



Day of August 1993

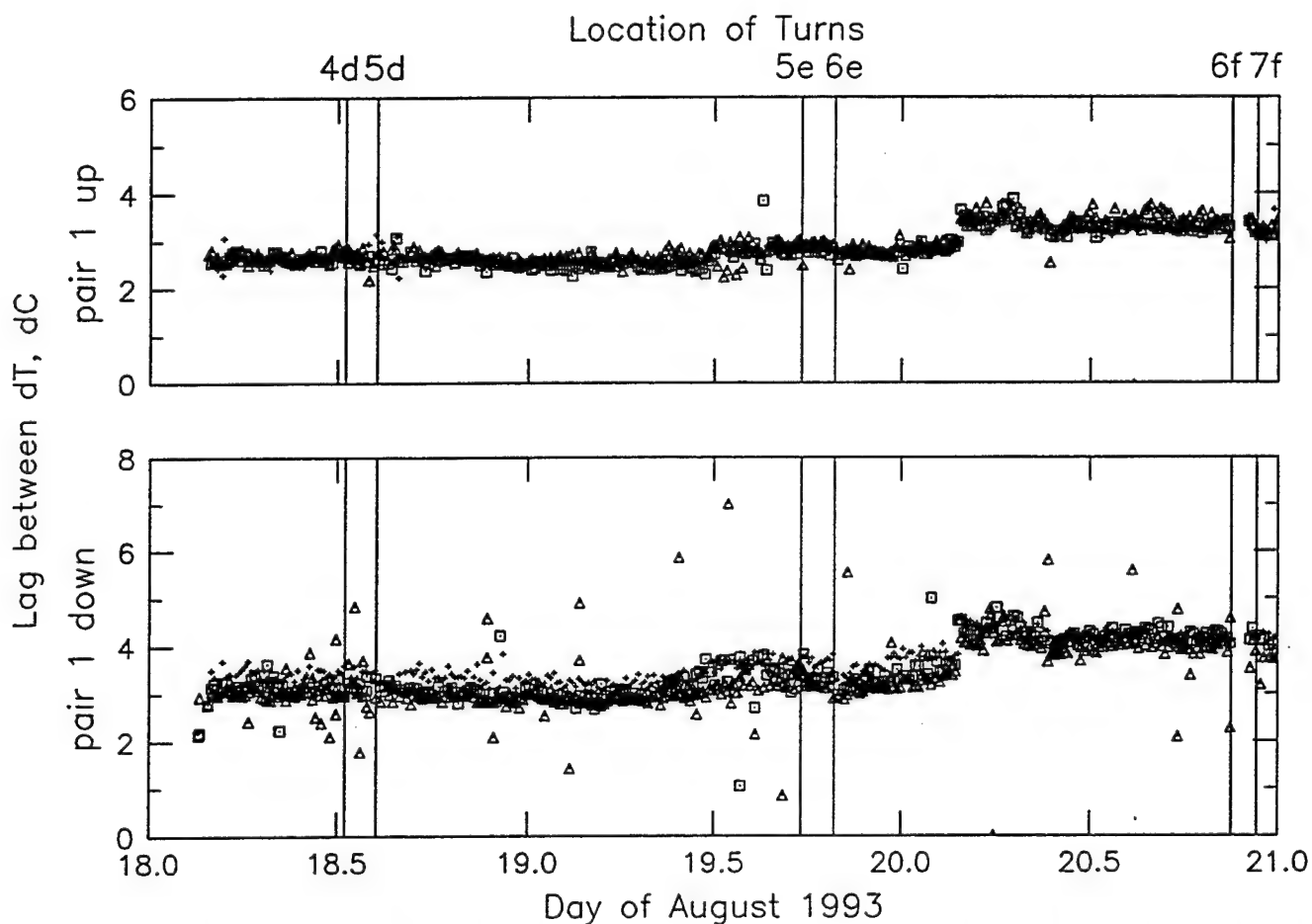
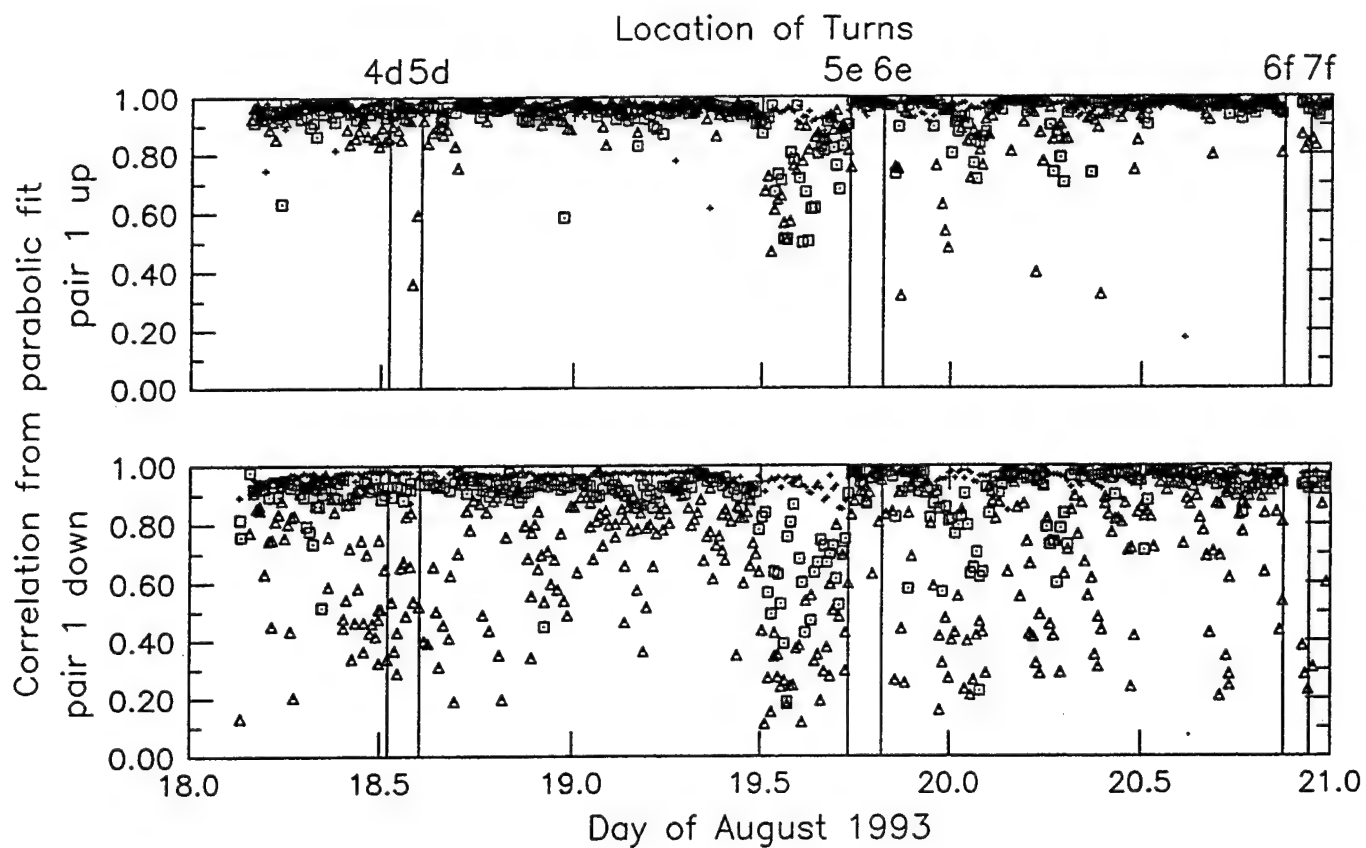
Location of Turns

3a 4a



Day of August 1993

W9308b Tow 1, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

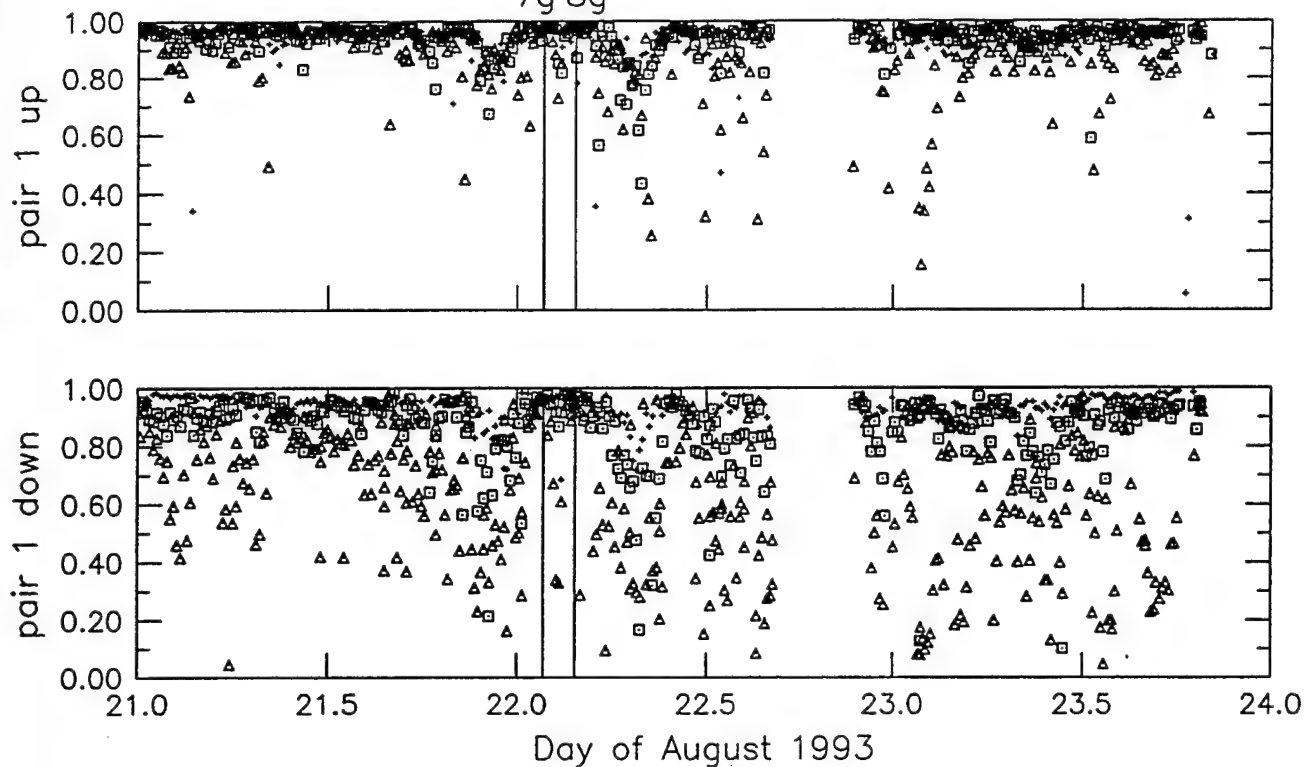


W9308b Tow 2, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

Correlation from parabolic fit

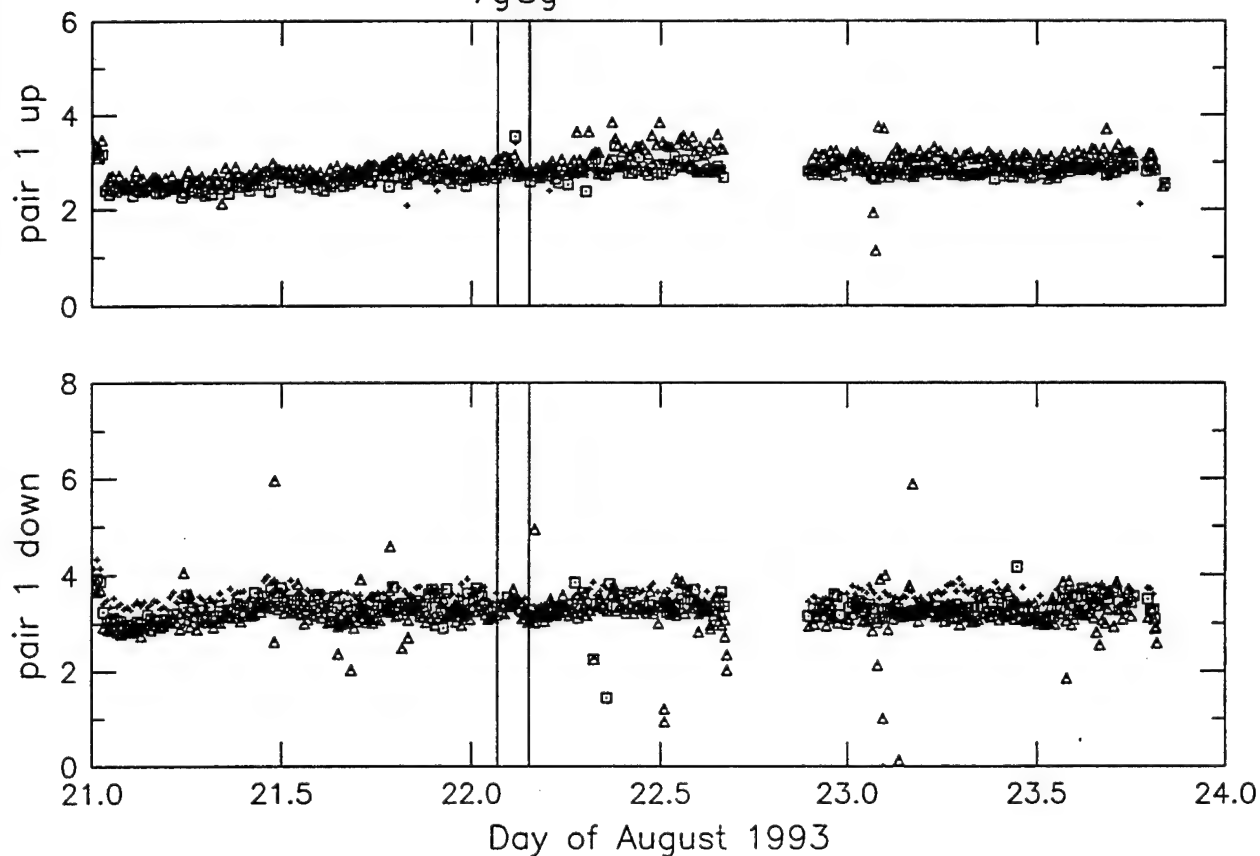
Location of Turns

7g 8g

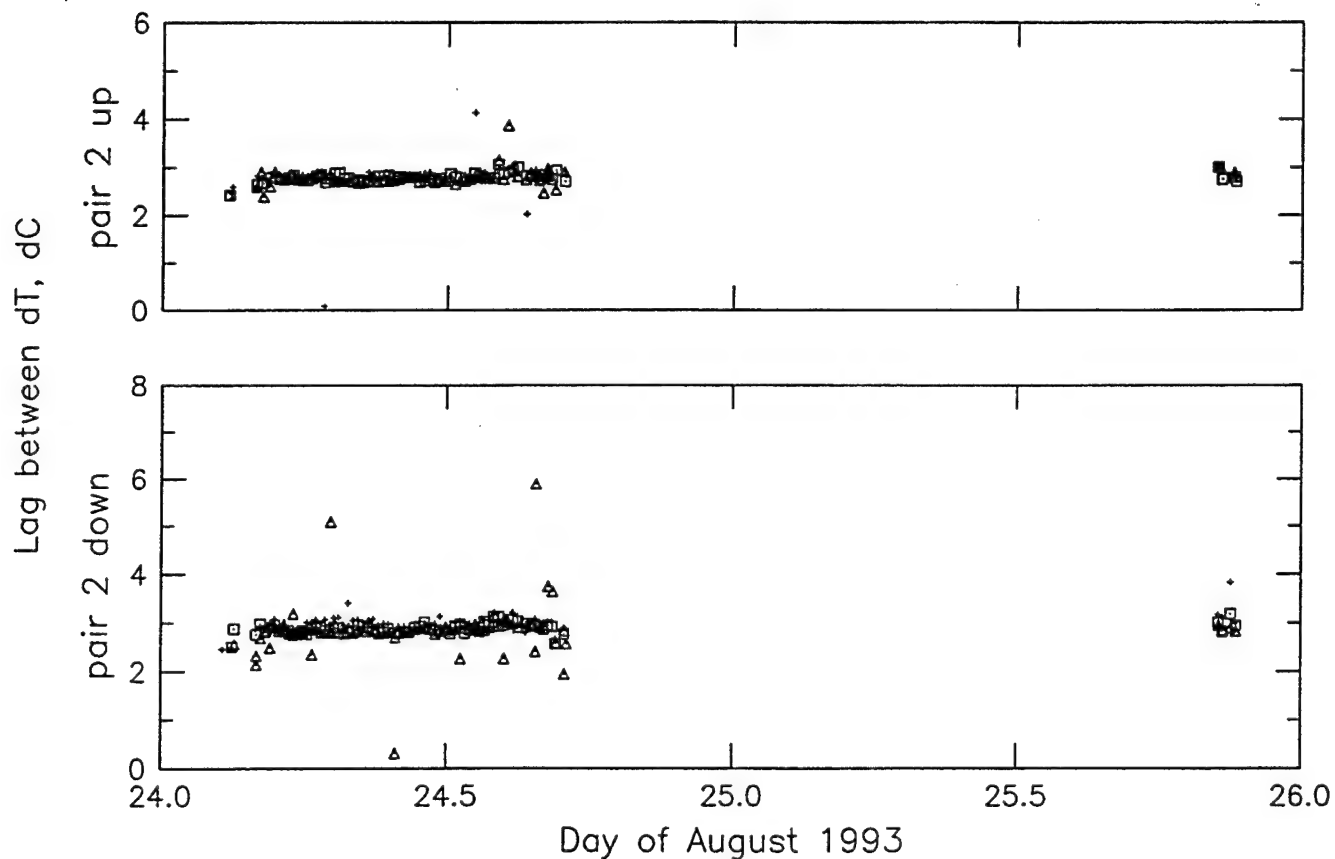
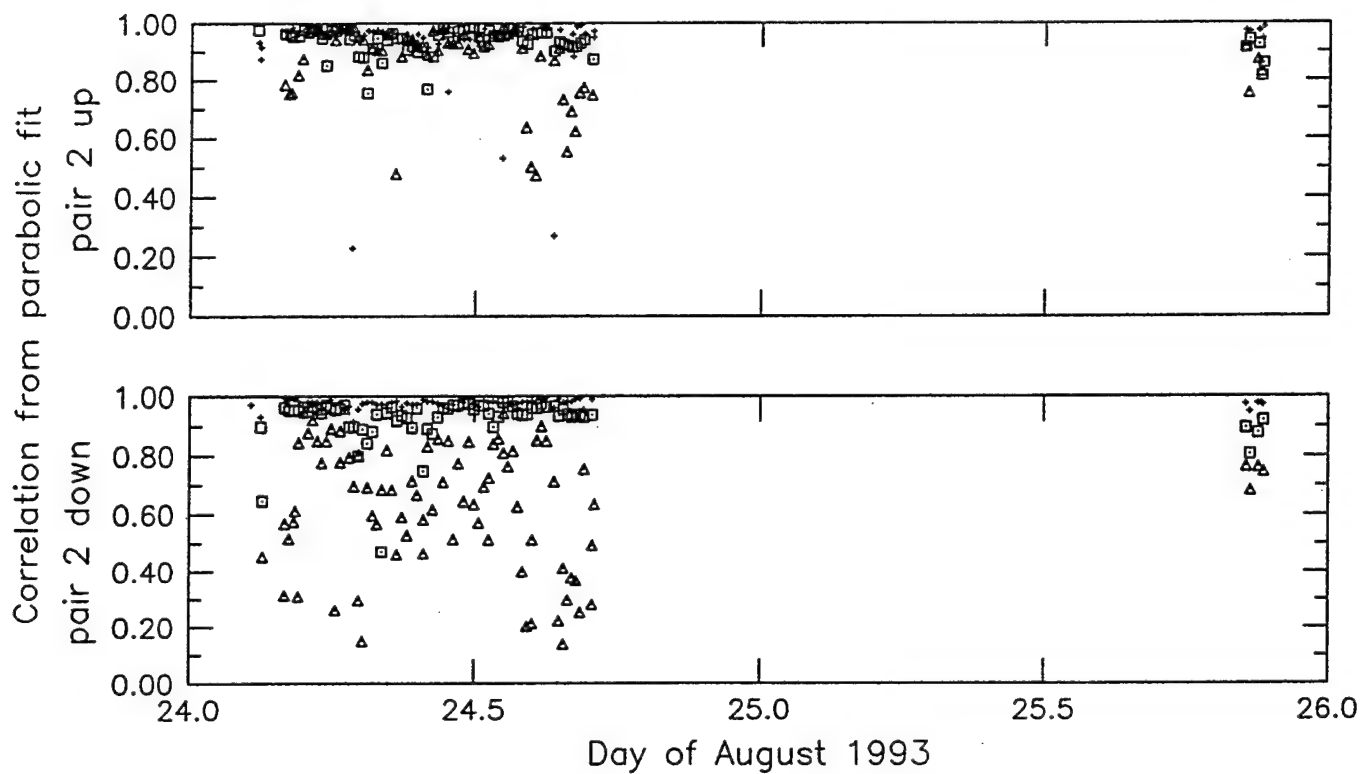


Location of Turns

7g 8g

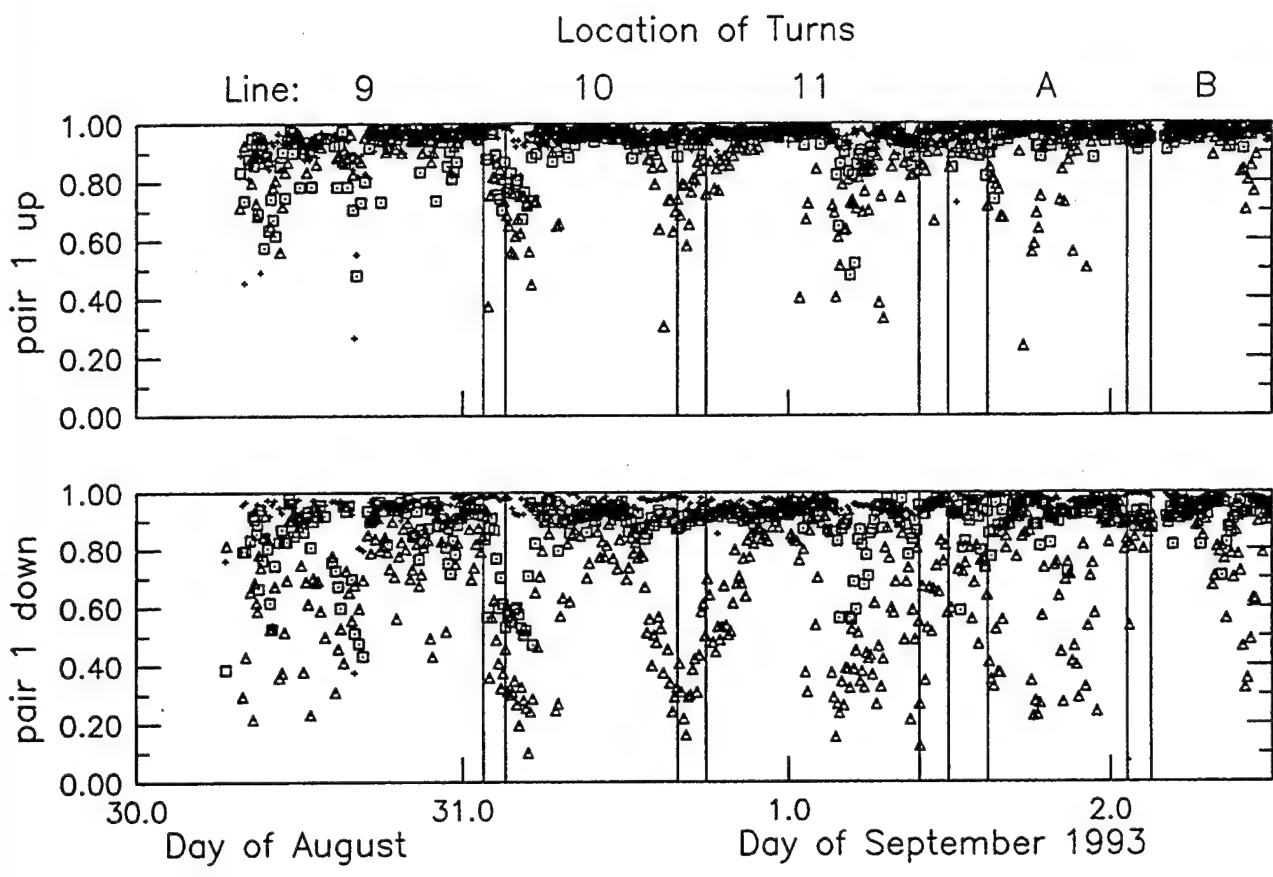


W9308b Tow 2, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

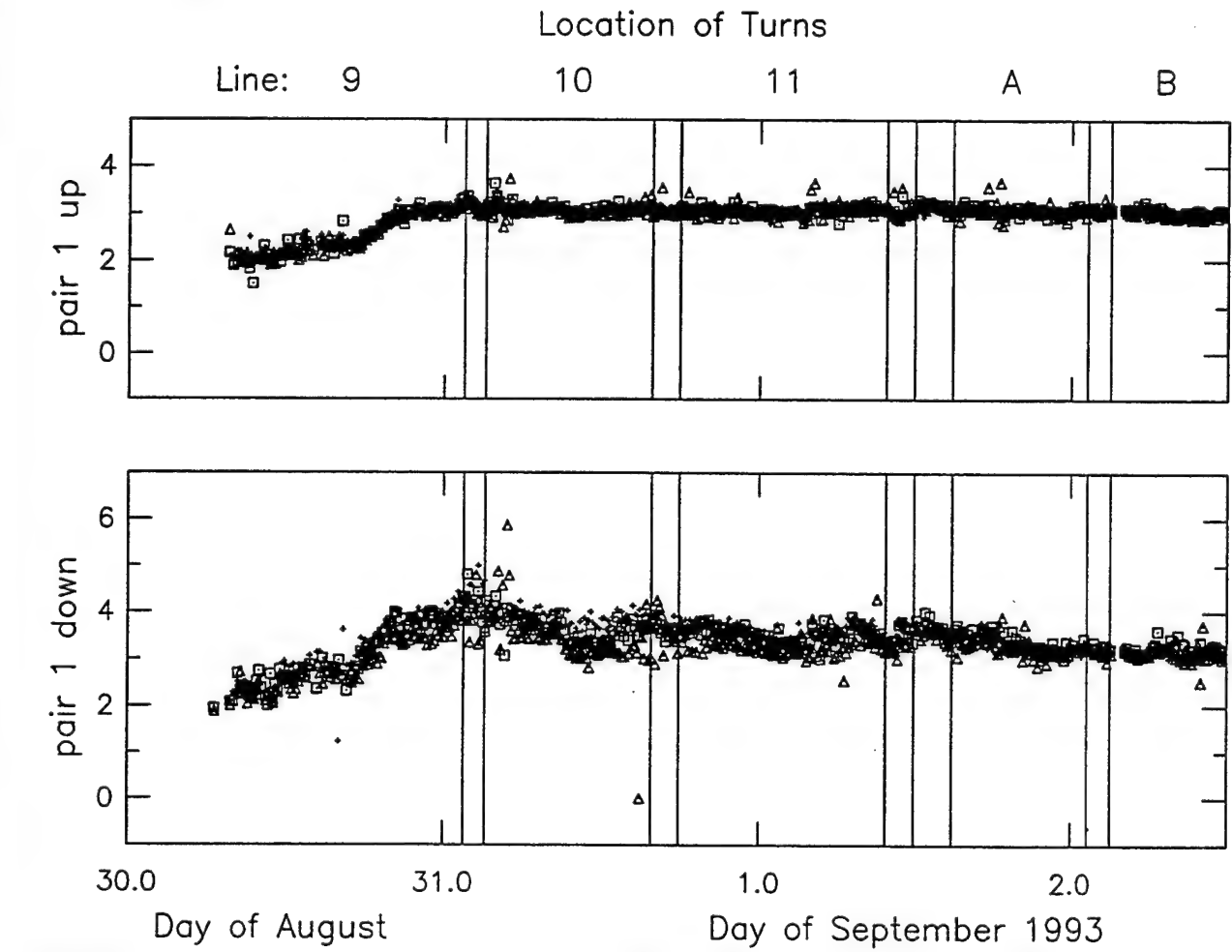


W9308b Tow 3, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

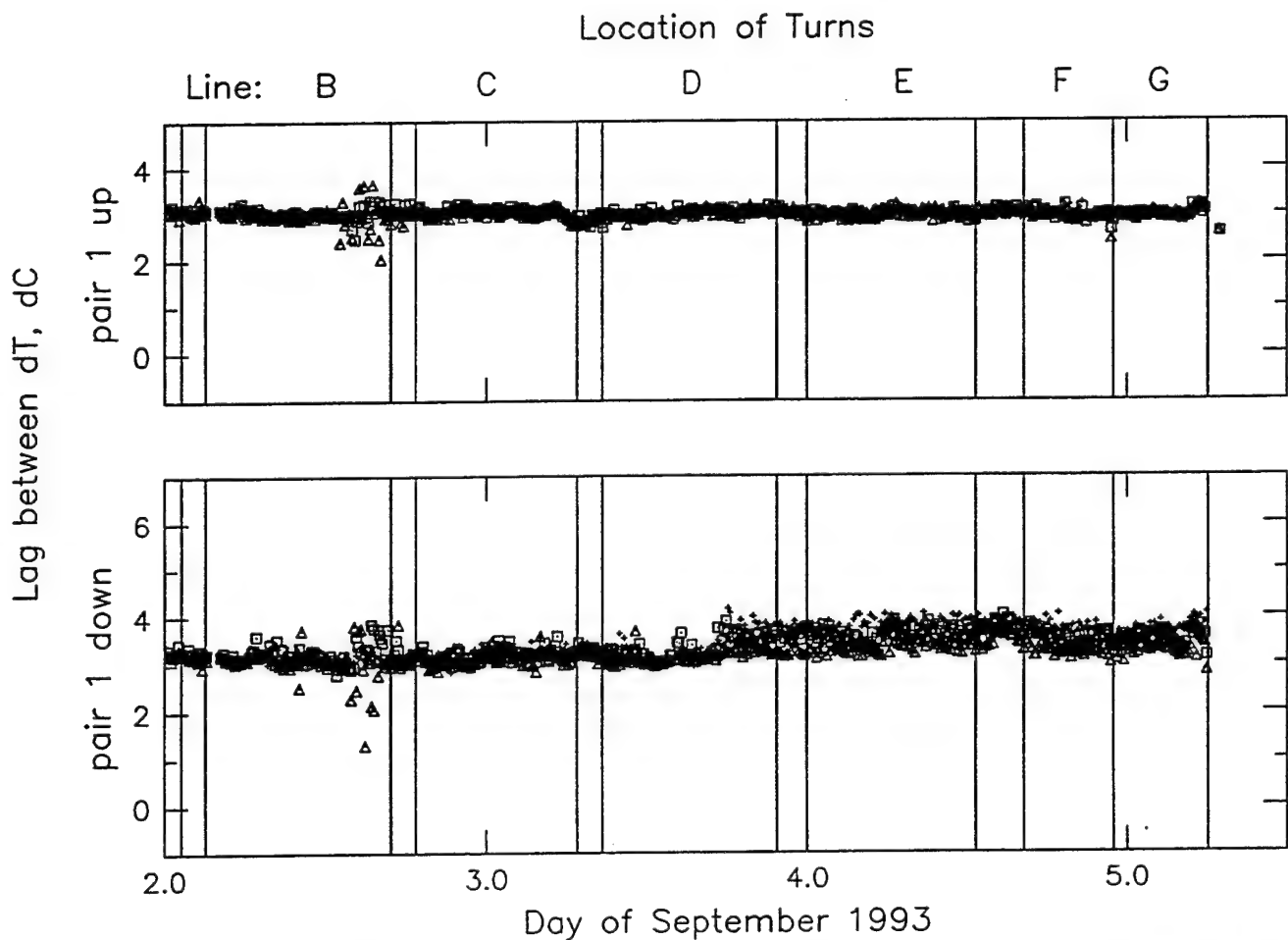
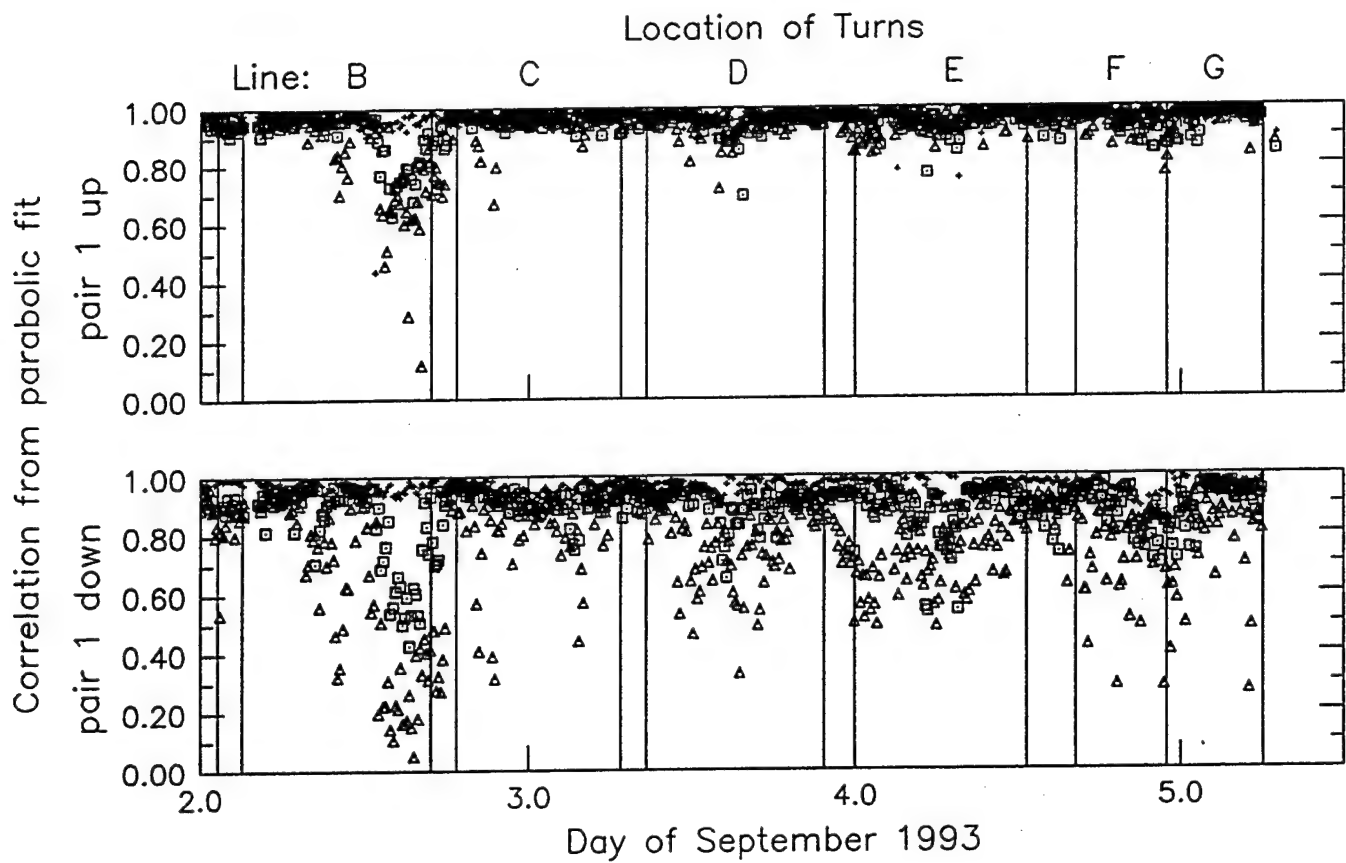
Correlation from parabolic fit



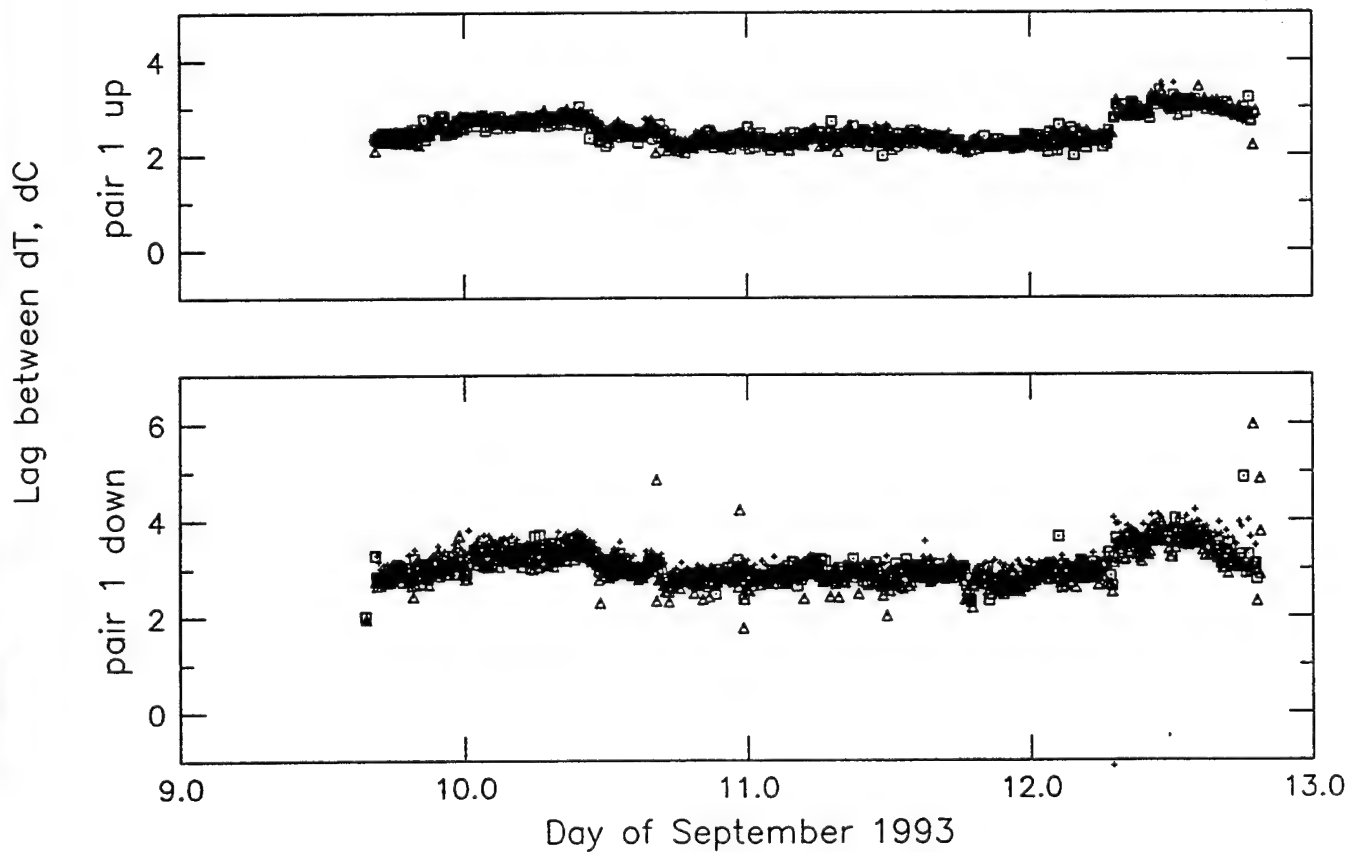
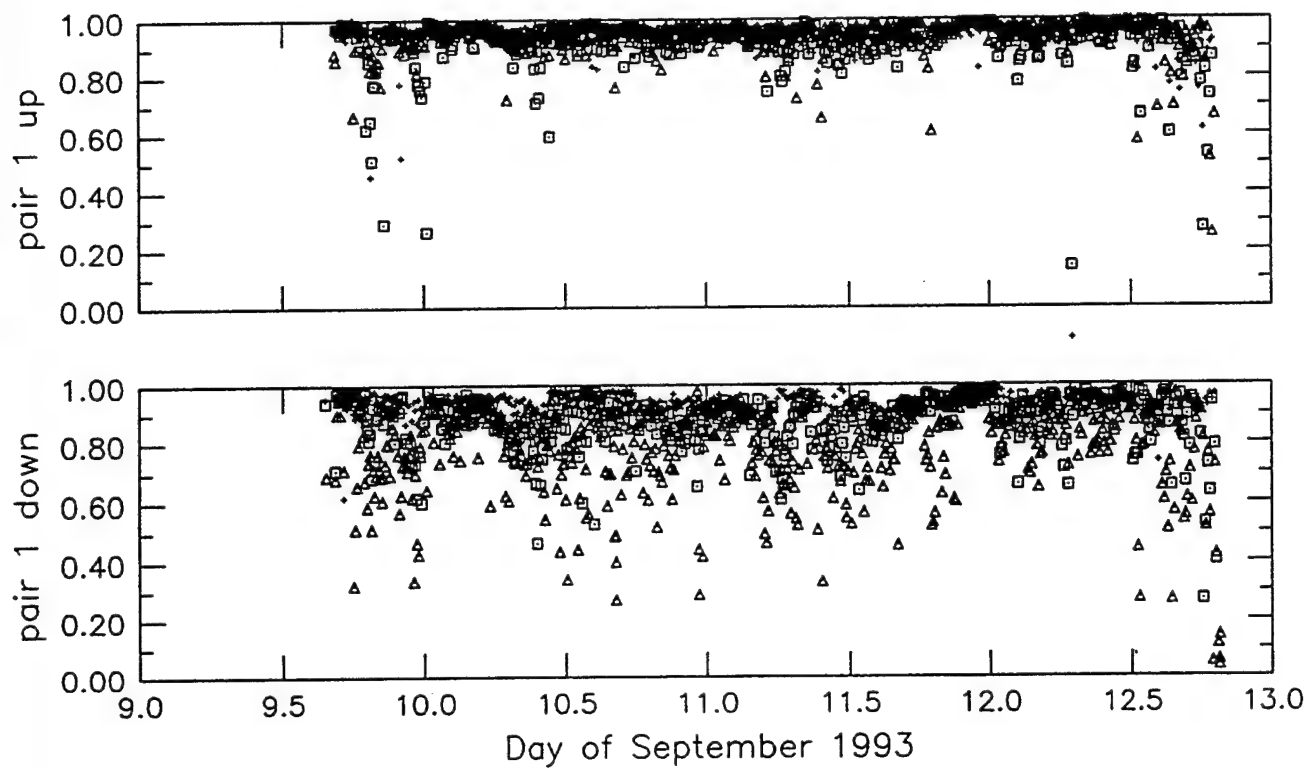
Lag between dT, dC



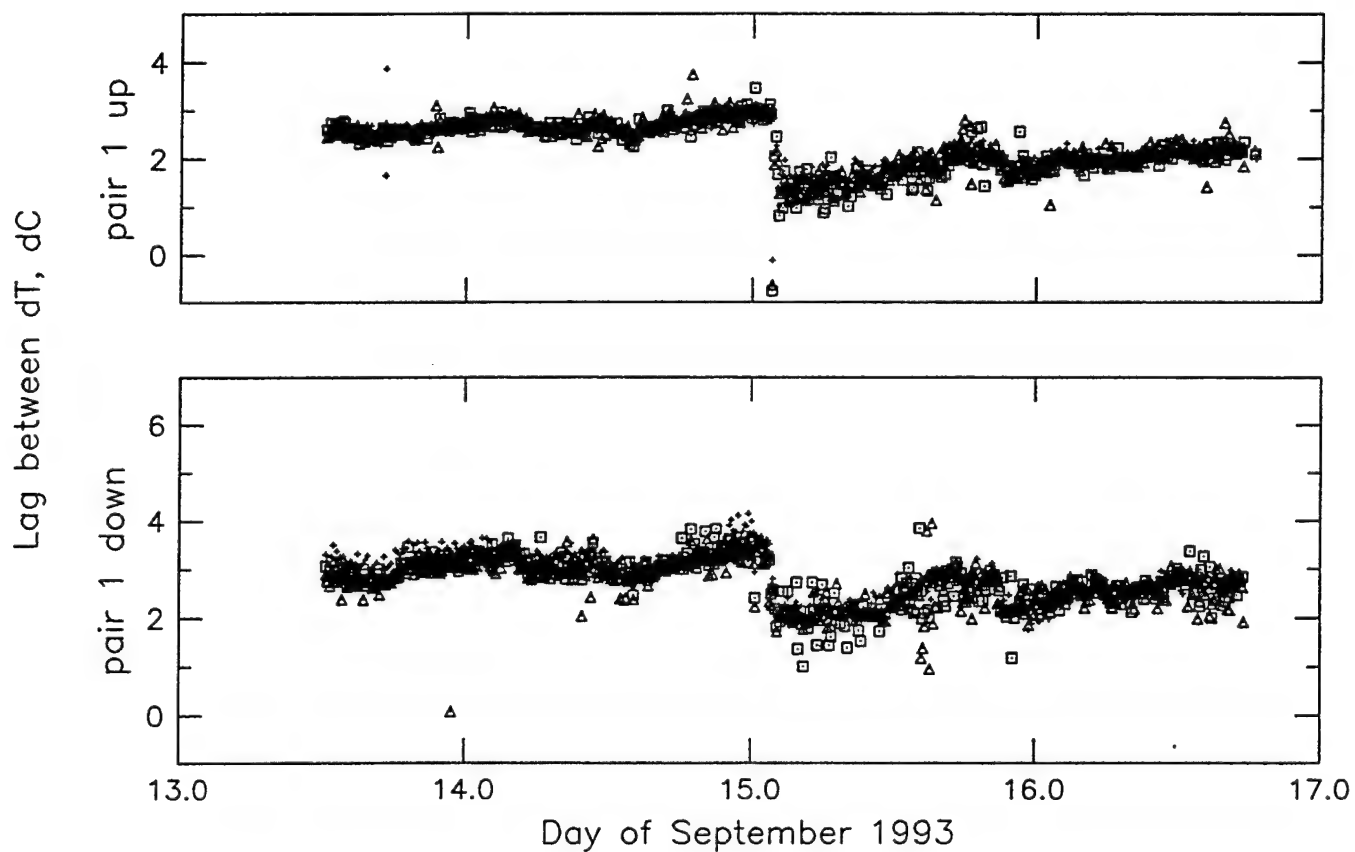
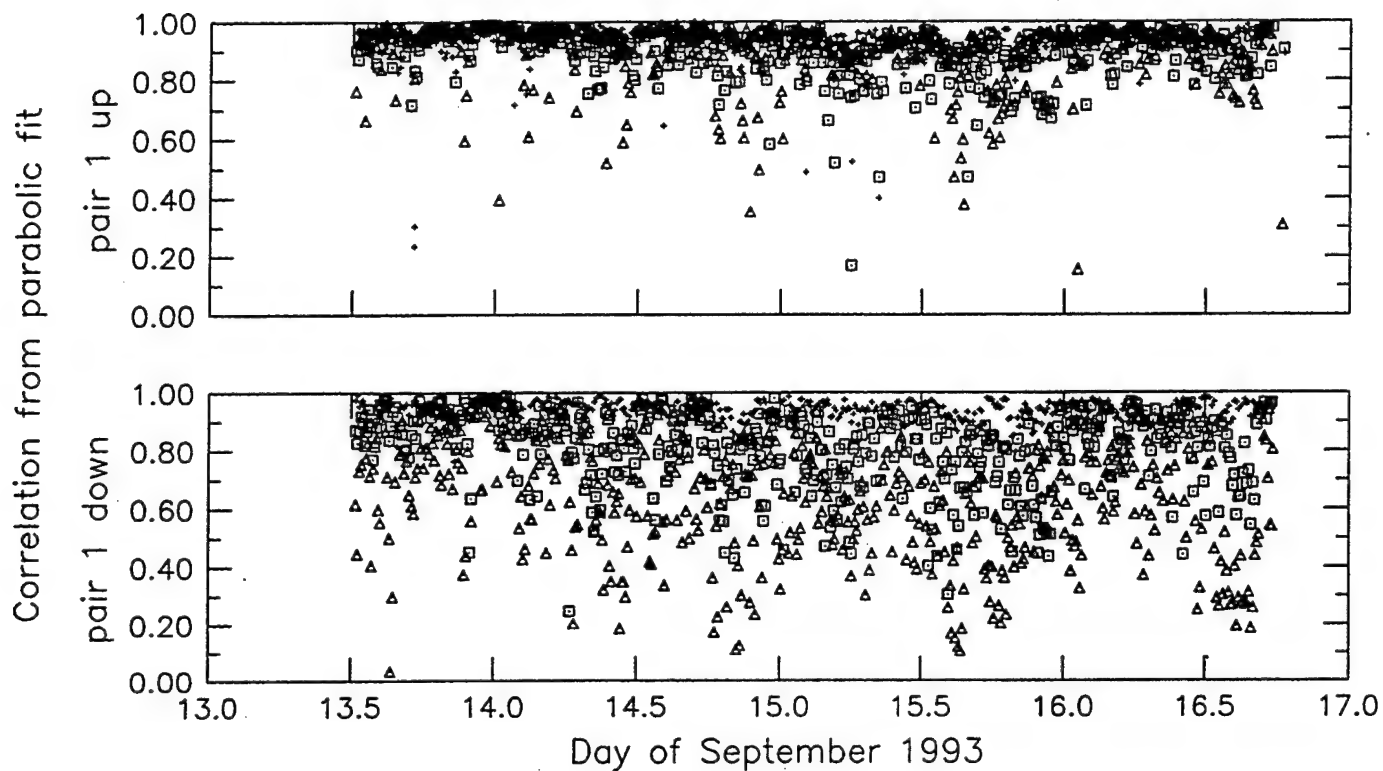
W9308b Tow 4, 50-120 db (plus), 120-180 db (square), 180-240 db (tri.)



W9308b Tow 4, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)



W9308b Tow 5, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

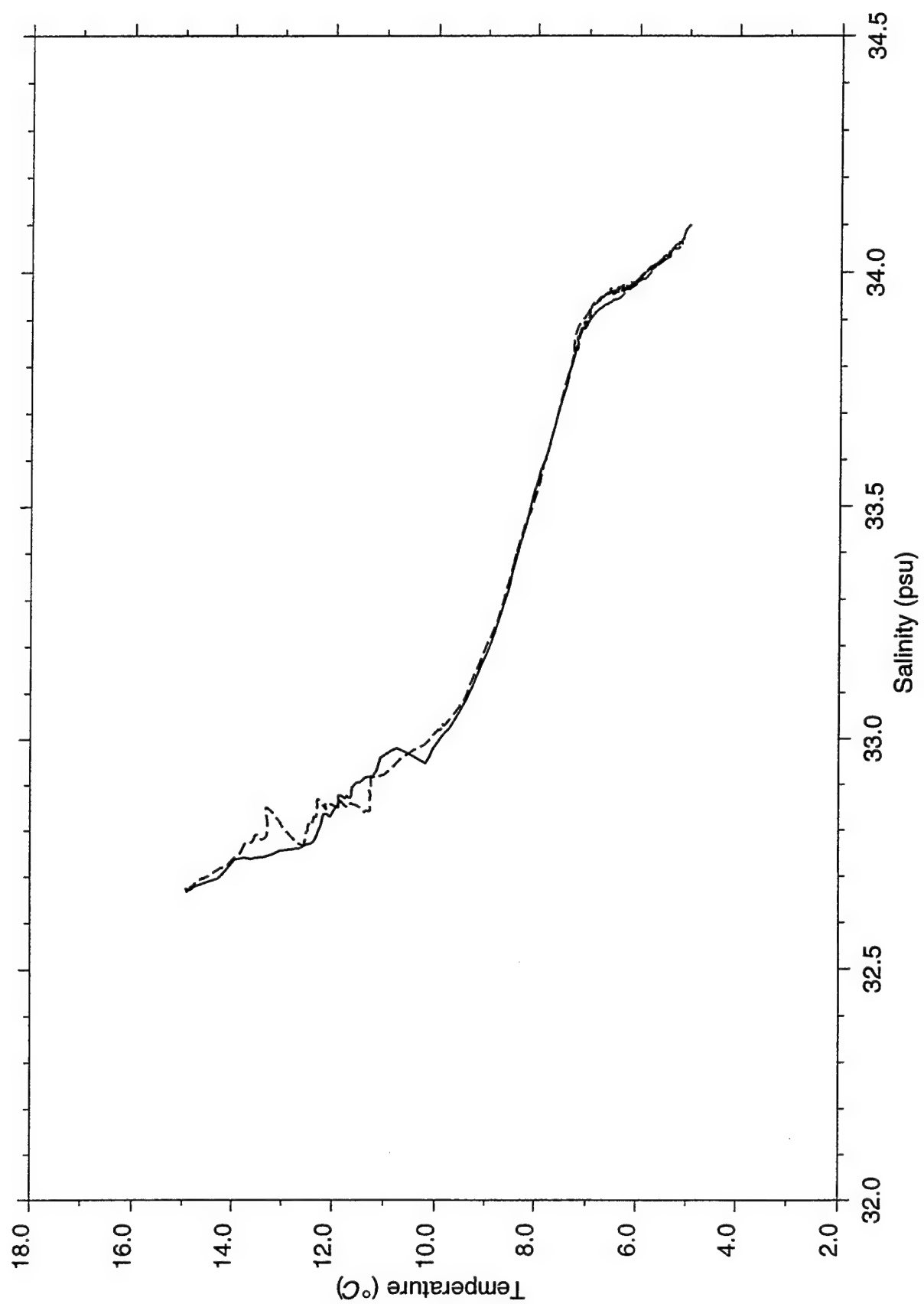


W9308b Tow 5, 50–120 db (plus), 120–180 db (square), 180–240 db (tri.)

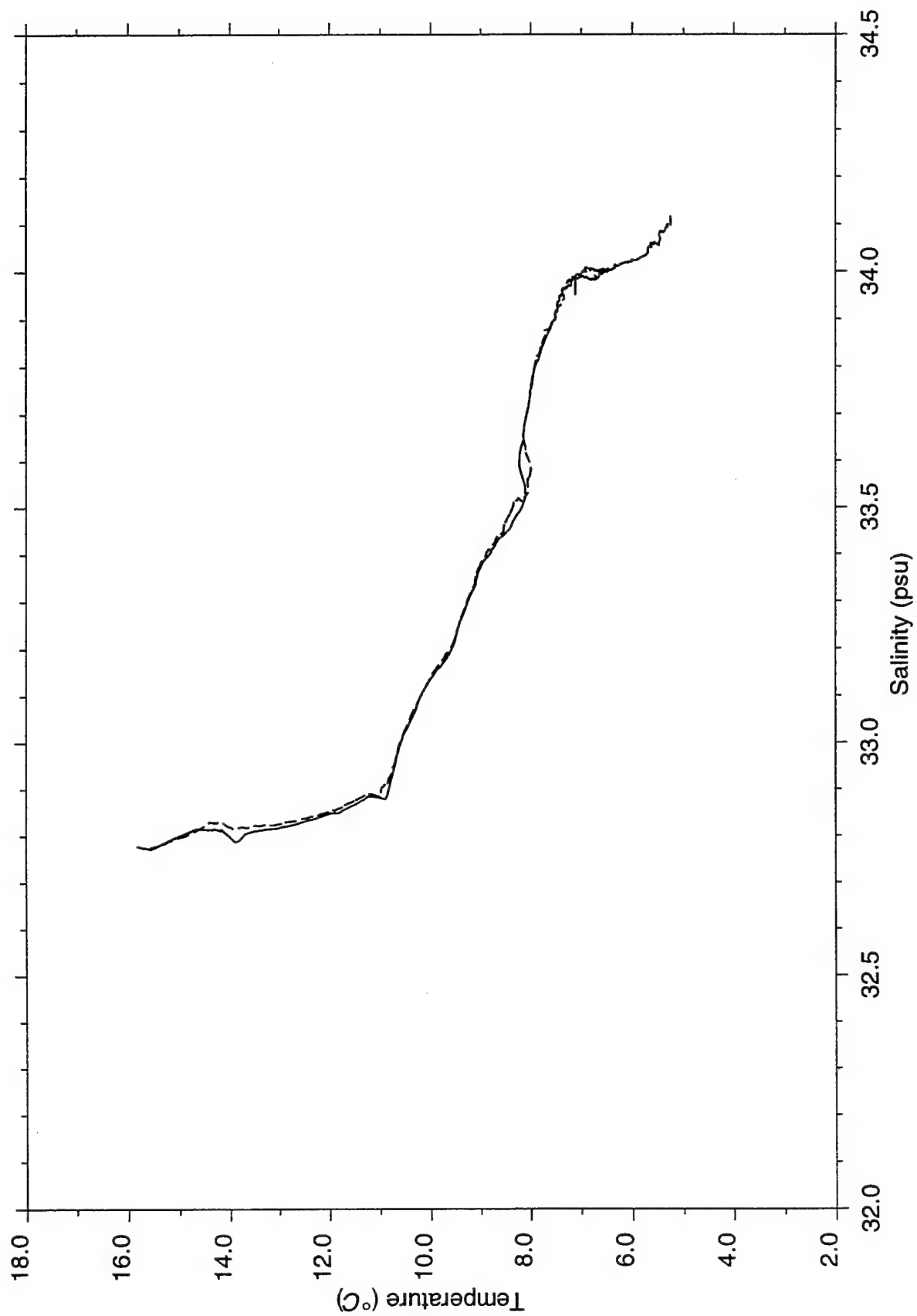
APPENDIX B:

T-S Diagrams from CTD and Seasoar
at Start and End of Tows.

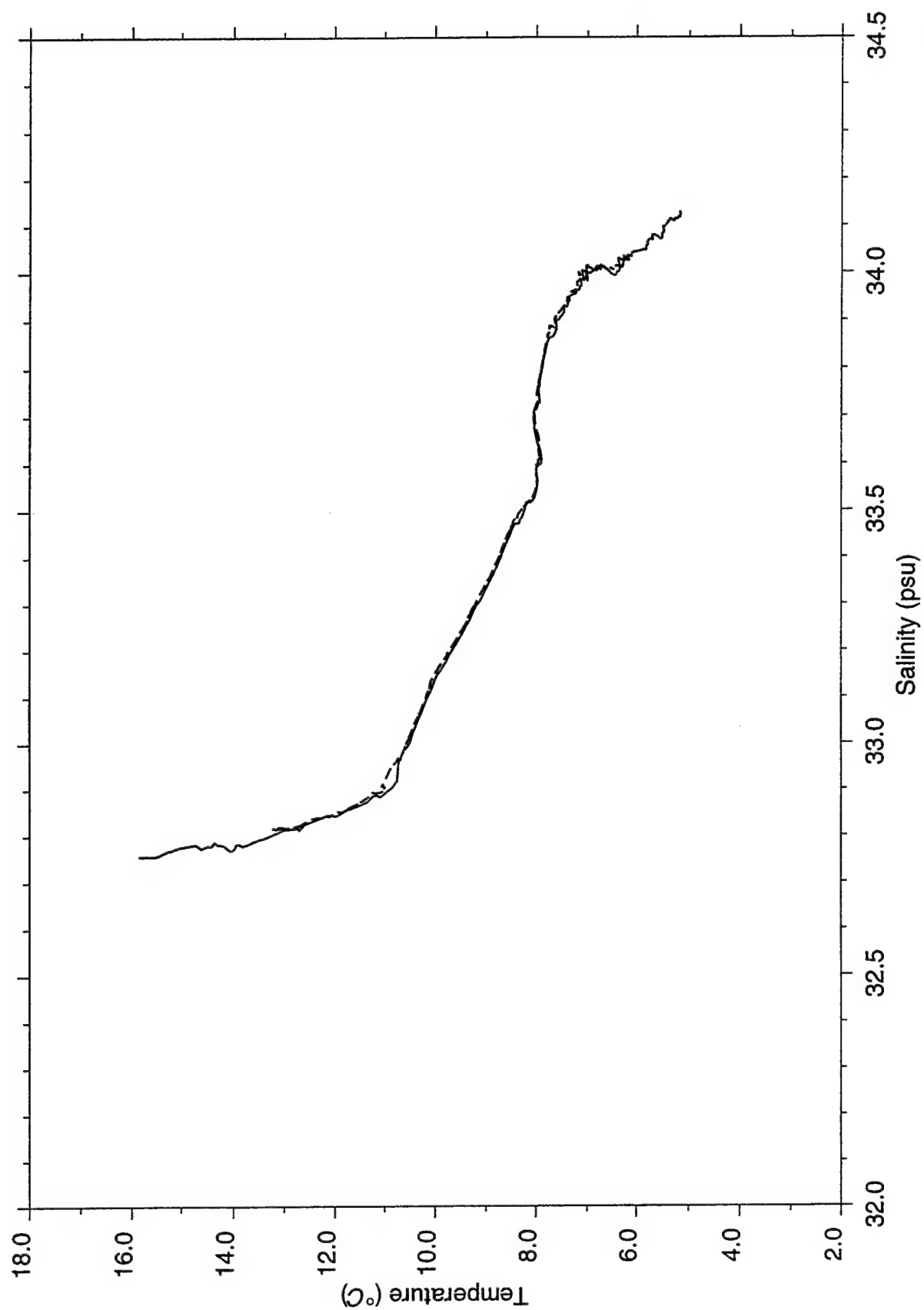
w9306ac.01 , tow1.beg :S2



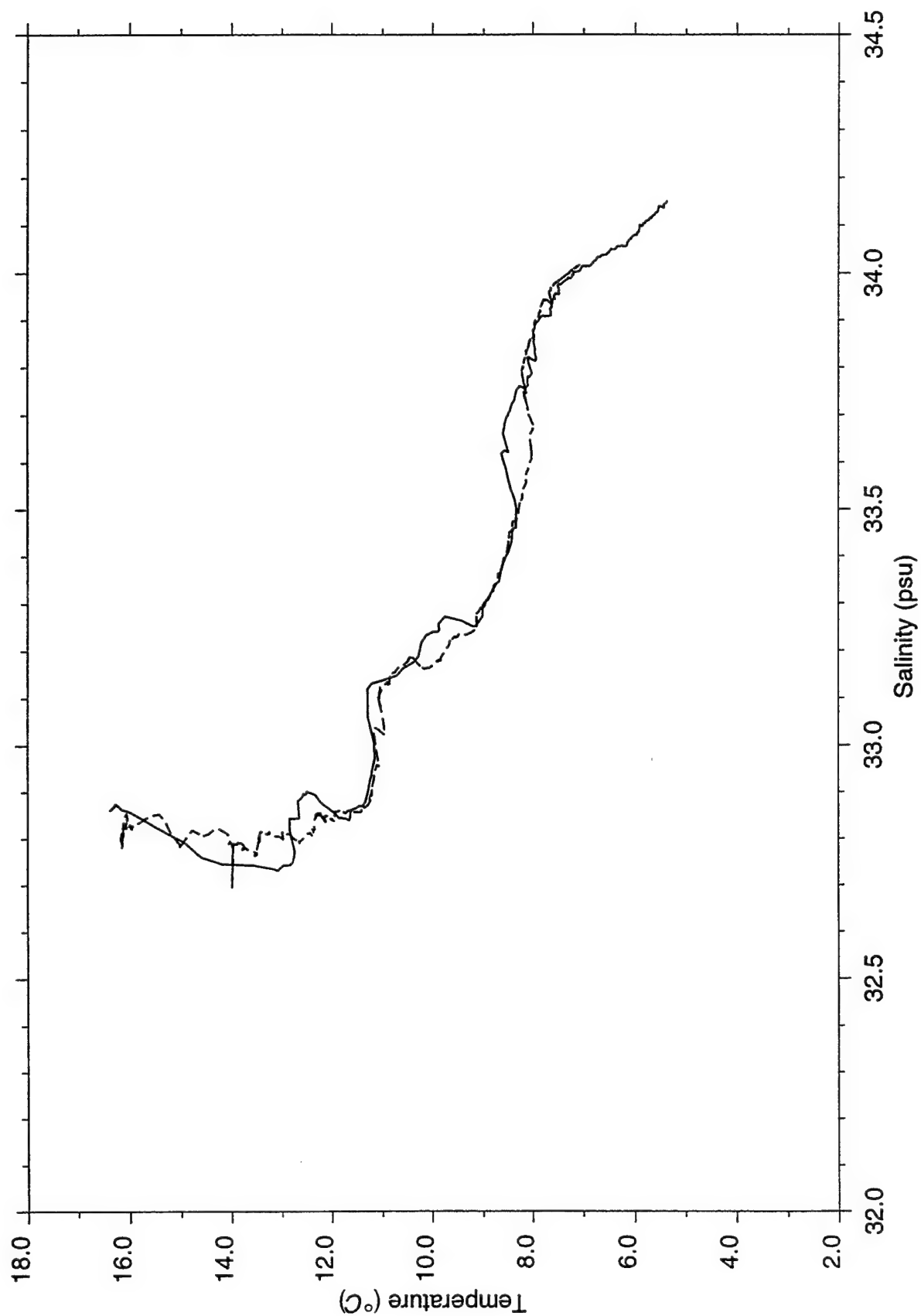
w9306ac.02 , tow1.end :S2



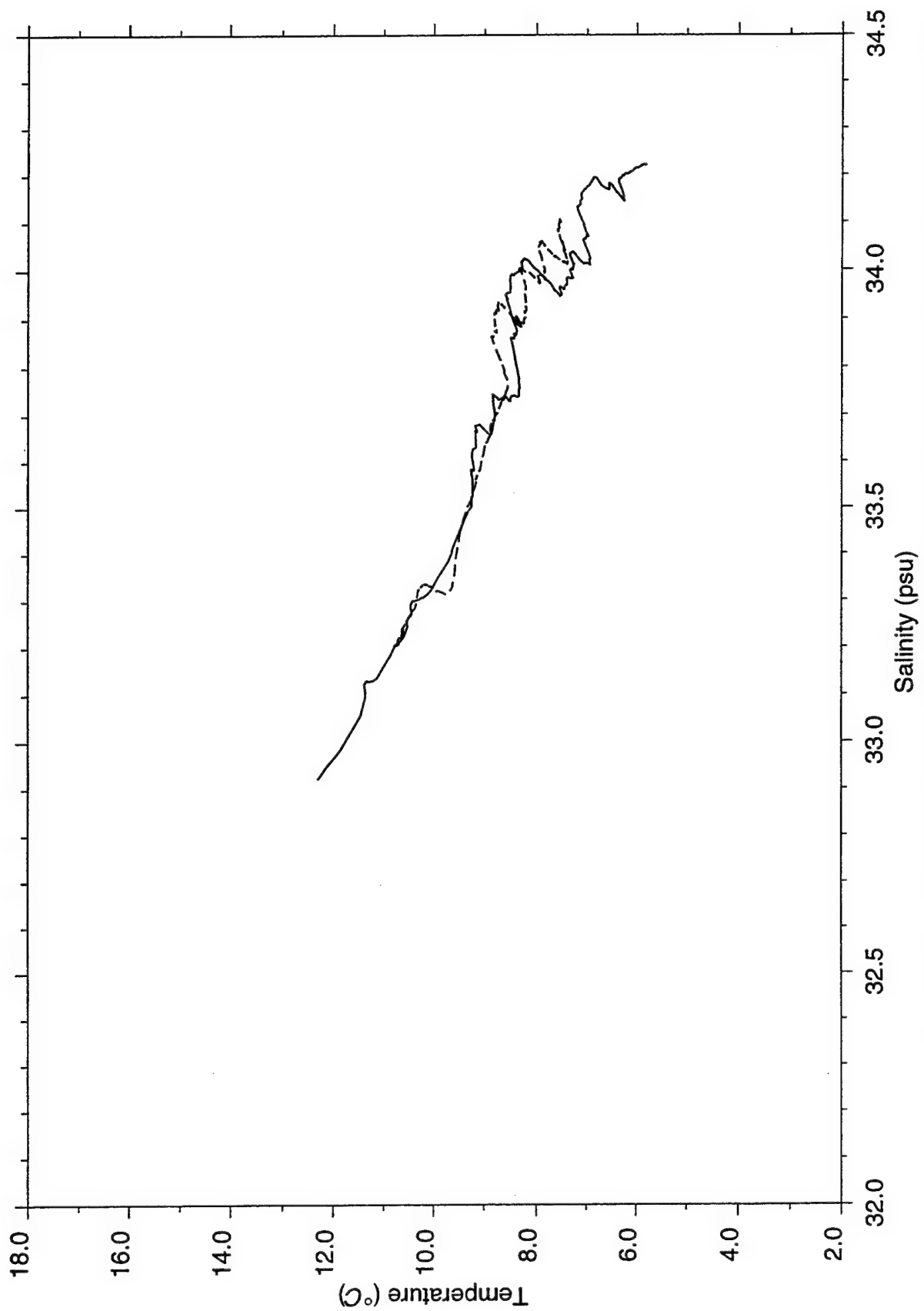
w9306ac.03 , tow2.beg :S1



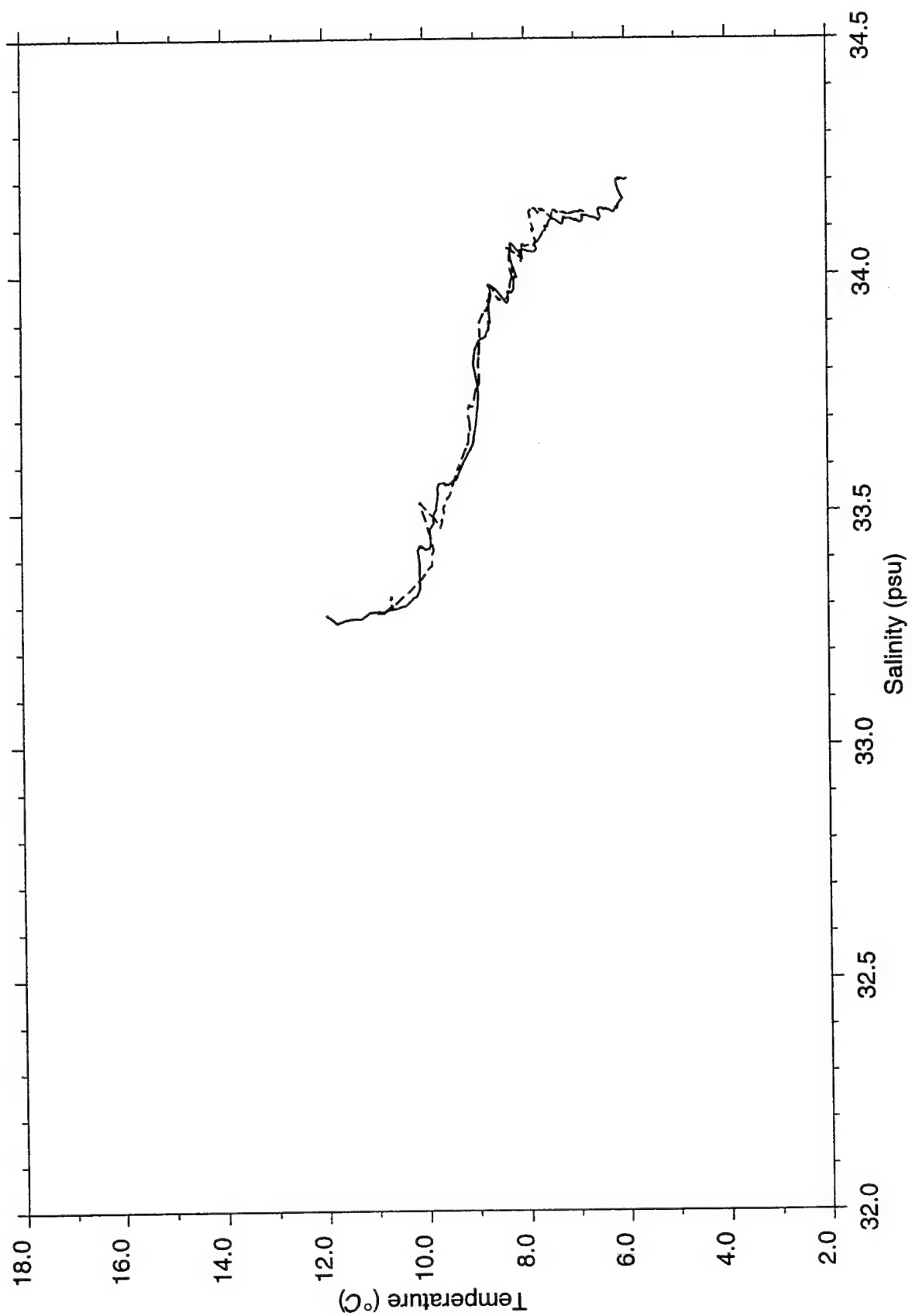
w9306ac.04 , tow3.beg :S2



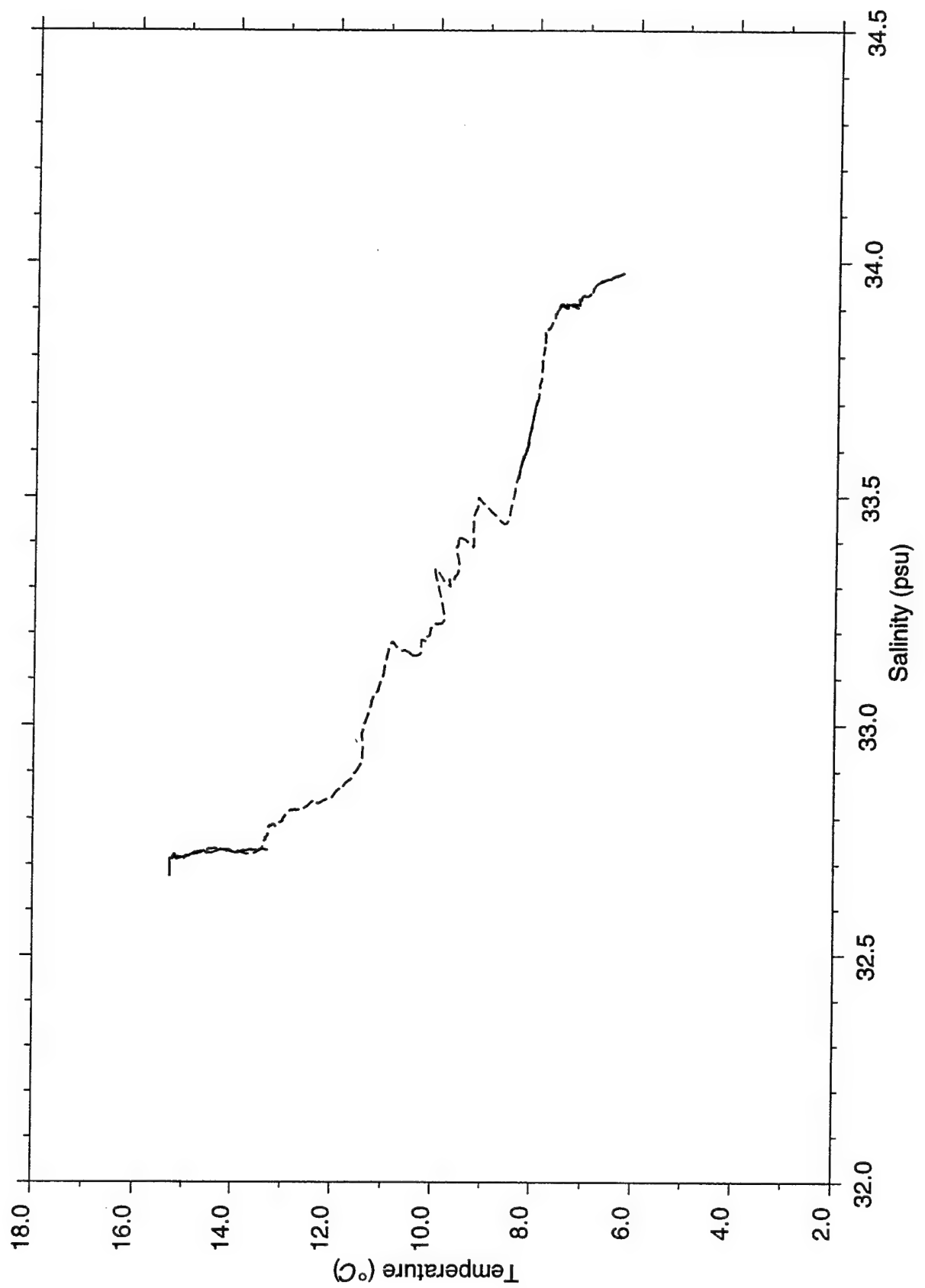
w9306ac.05 , tow3.end :S2



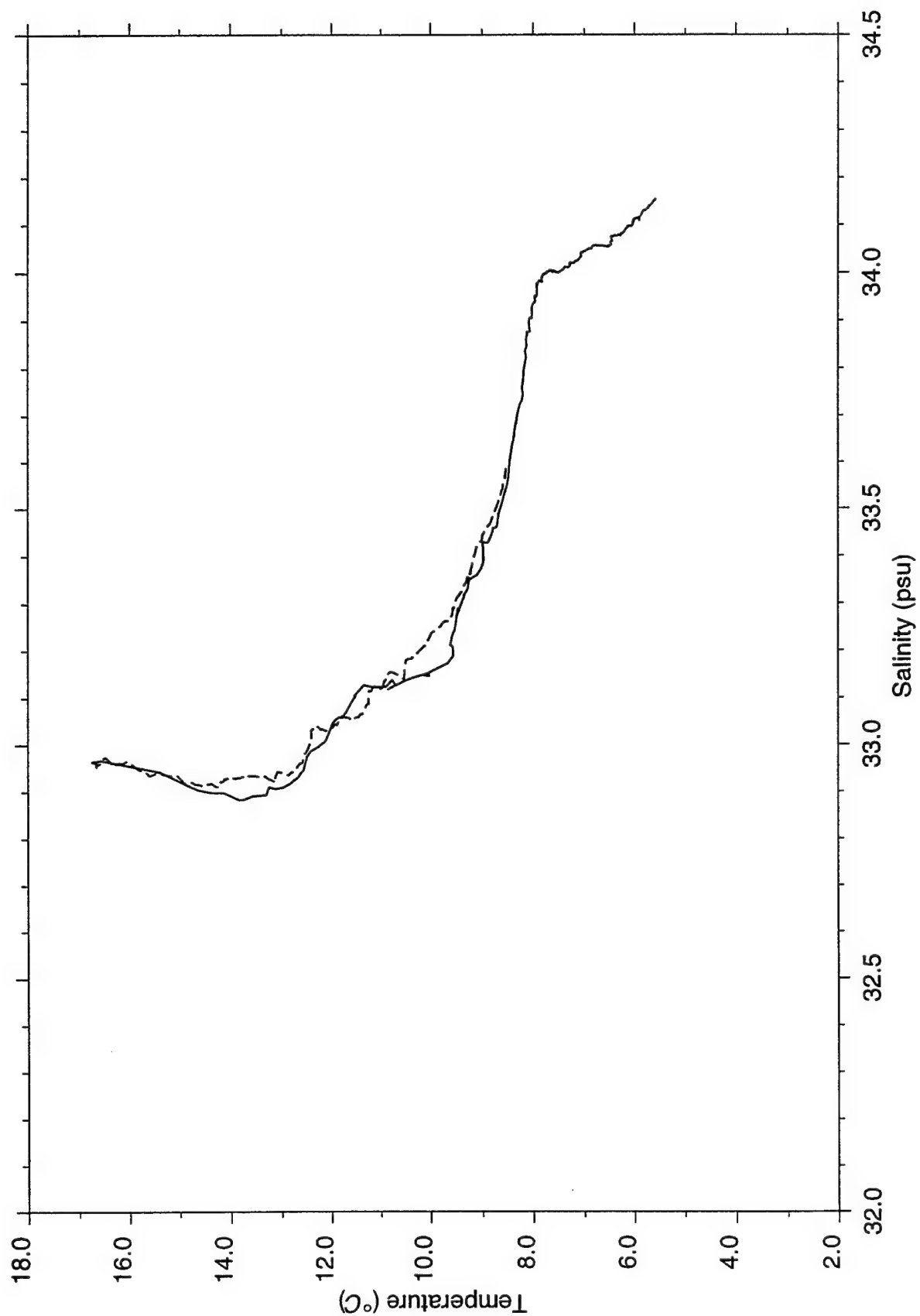
w9306ac.08 , tow4.beg :S1



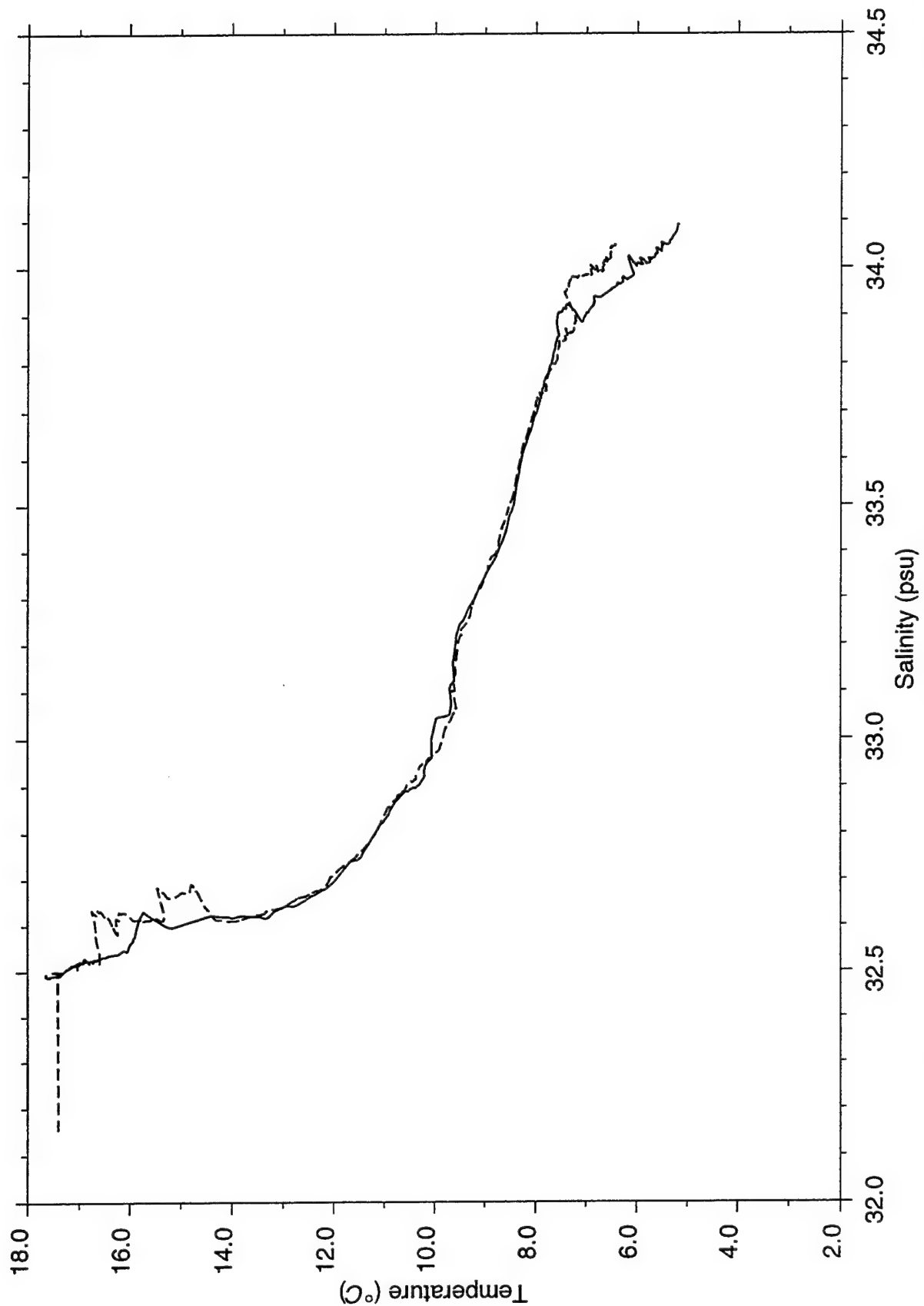
w9306ac.11 , tow6.beg :S2



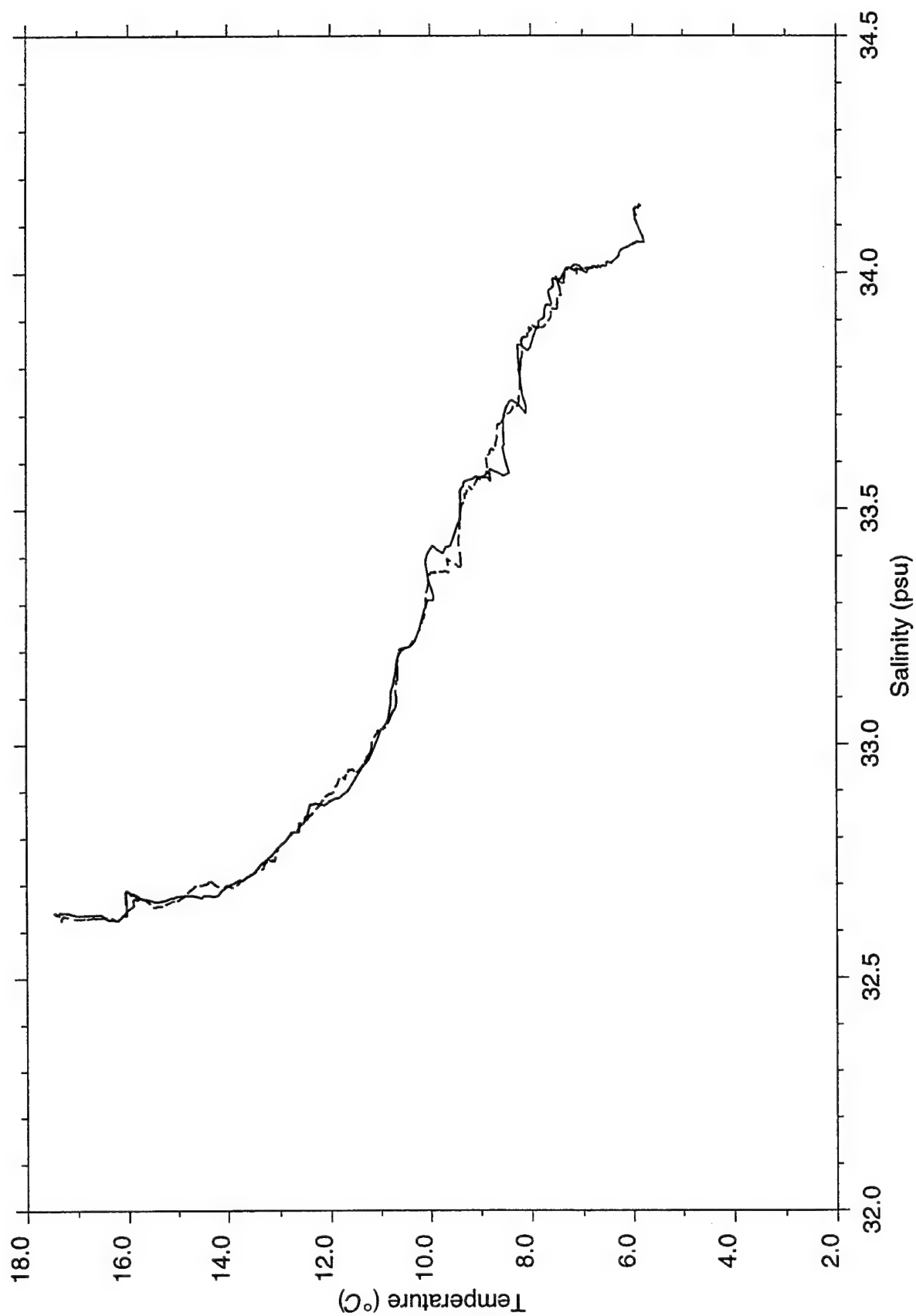
w9306ac.12 , tow6.end :S2



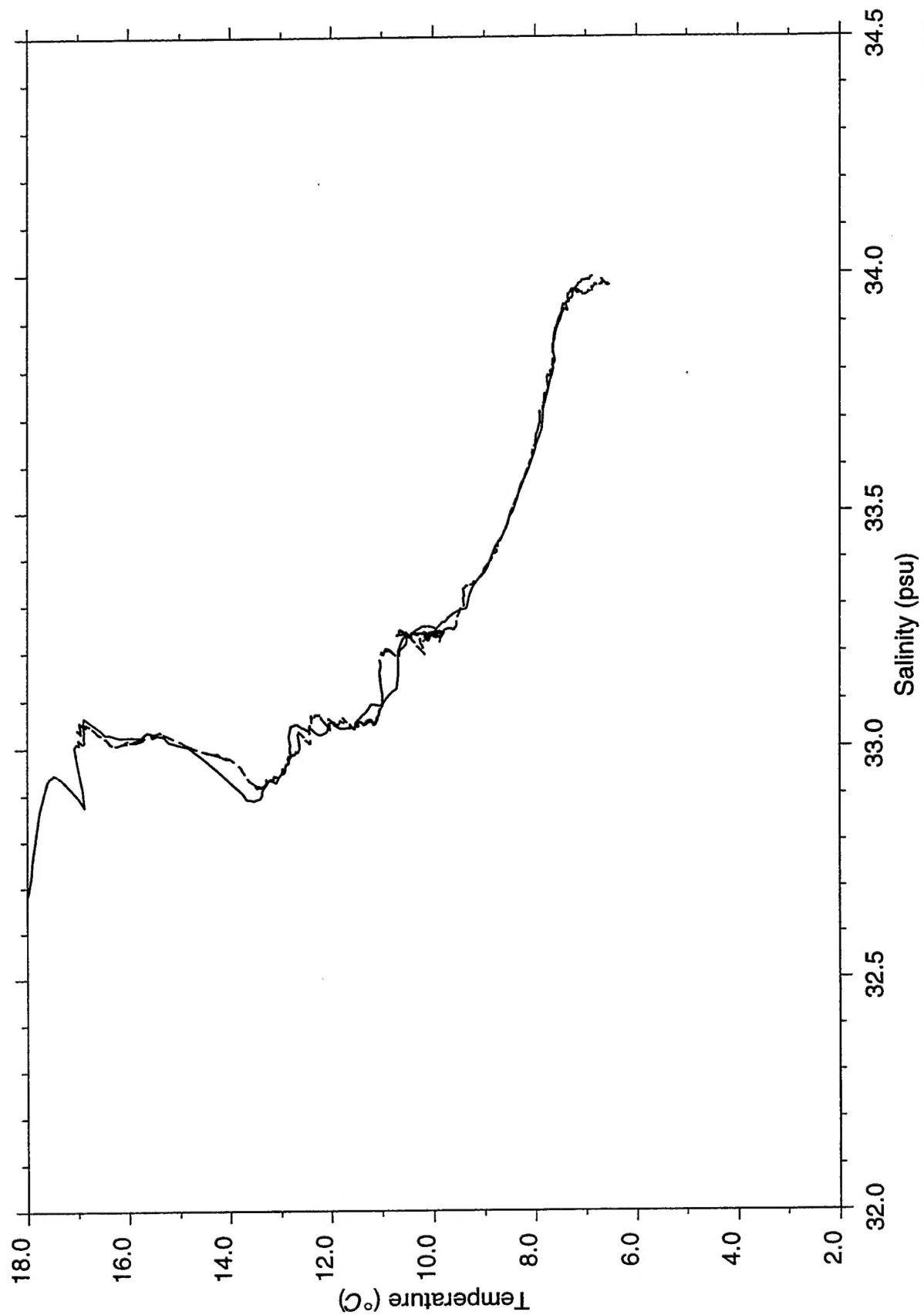
w9308bc.01 , tow1.beg :S1



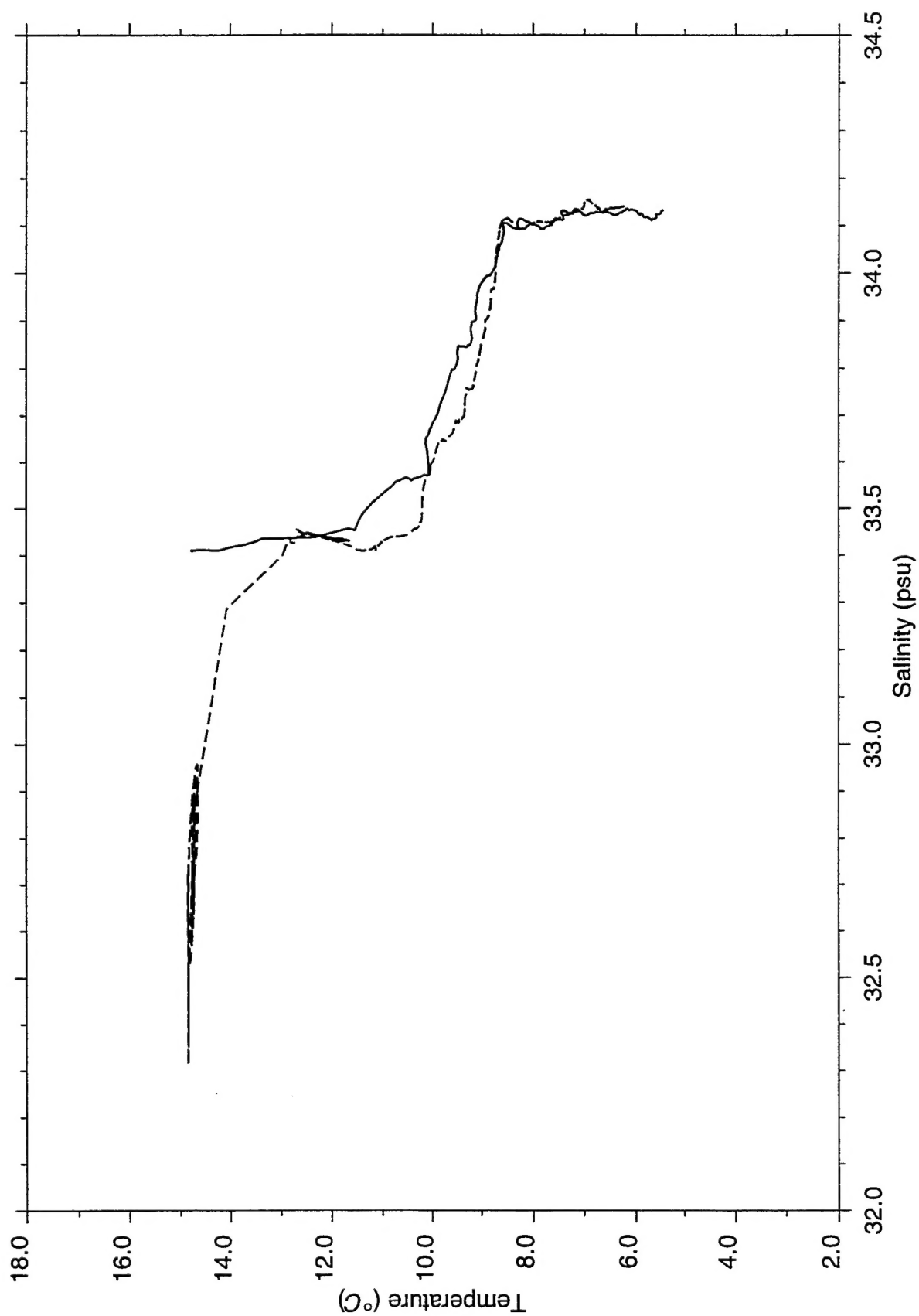
w9308bc.03 , tow1.end :S1



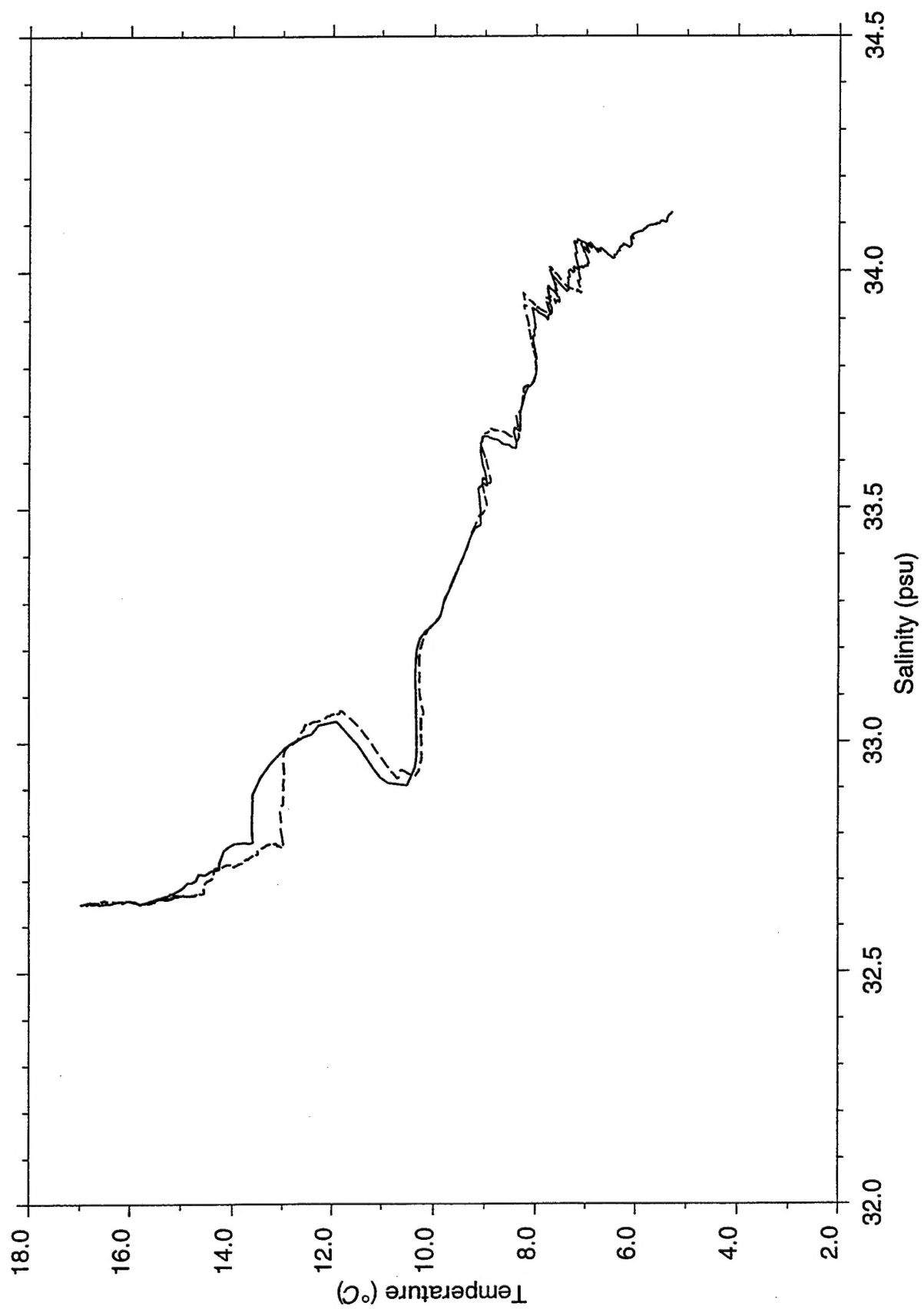
w9308bc.04 , tow3.beg :S2



w9308bc.09 , tow4.beg :S1



w9308bc.10 , tow4.end :S1



w9308bc.40 , tow5.end :S1

